

DEPARTMENT OF ENERGY  
FY 1998 CONGRESSIONAL BUDGET REQUEST  
DEFENSE ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT  
(Tabular dollars in thousands, narrative in whole dollars)

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

PROGRAM MISSION

The Office of Nuclear Material and Facility Stabilization was established to manage the activities related to surplus weapons' complex facilities and to ensure the nuclear materials and spent nuclear fuel are placed in a form suitable for longer-term storage and to deactivate the facilities. The physical and chemical nature of the various nuclear materials remaining in the facilities are not appropriate for long-term storage and in their current form represent an unacceptable level of risk to site workers, the public, and the environment. The Department must stabilize these materials and fuel (i.e., produce a safer chemical and/or physical form of the material) to reduce the level of potential risks such as exposure to radiation, contamination of people and the environment, and criticality events.

Milestones have been established for the stabilization of nuclear materials, including various forms of plutonium, uranium, special isotopes, and spent nuclear fuel by the year 2002. Stabilization means that something (processing from a liquid to a solid form, processing to remove activated waste streams, repackaging, etc.) must be done to the nuclear materials so that they pose significantly less risk to workers, the public, and/or the environment. Nuclear materials will be stabilized in the F-Canyon, FB-Line, H-Canyon, and HB-Line at Savannah River Site, the Plutonium Finishing Plant at Richland, and in several facilities at the Rocky Flats Plant. These activities have been prioritized so that the most urgent risks are addressed first. Milestones have also been developed for the management of spent nuclear fuel including both DOE-owned fuels, as well as foreign research reactor fuels, being returned to the United States for nonproliferation purposes. These fuels will be treated, where necessary, packaged suitably for final disposal where practicable, and placed in interim dry storage. Further, as nuclear materials and spent fuel are placed in a more stable (i.e., lower risk) form, the physical plant (i.e., buildings, production systems, machinery, and utilities) can be deactivated. Deactivation means that once nuclear materials are removed from a facility, steps are taken to remove all other hazardous materials and chemicals. Further, support systems, such as electrical distribution systems, are reduced to the minimum level necessary to assure that there is little contamination or safety risk to workers, the public and/or the environment. Examples of deactivation work include de-energizing utilities, draining plumbing lines, removing fuel rods from nuclear reactors, and dismantling unsafe portions of equipment and buildings. At this point, other support systems, such as fire protection, maintenance, Radcon support, etc. can be reduced dramatically. Deactivation will be occurring in various waste and material processing and handling facilities, fuel fabrication facilities and related support facilities. It is the program's objective to comply with all National Environmental Policy Act (NEPA) requirements prior to stabilization and deactivation activities. The funds requested in this budget address the requirements to meet the essential stabilization and deactivation milestones.

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

In FY 1994 the Defense Nuclear Facilities Safety Board recommended (Recommendation 94-1) that DOE develop a plan, on a high priority basis, to stabilize plutonium and other nuclear materials into forms suitable for safe "interim" storage. The Nuclear Materials Stabilization Task Group (NMSTG) is moving forward with a program to integrate complex-wide initiatives to manage nuclear materials stabilization activities. Through this program, the Department has committed to the stabilization of materials presenting the most urgent risk by May 1997, with lower risk materials being stabilized by May 2002, and all excess plutonium metal and oxide packaged for long-term storage. The NMSTG has taken an integrated Department-wide approach to stabilization issues; evaluating and integrating facility stabilization capabilities; procuring standardized equipment to support plutonium oxide stabilization and packaging for long-term storage; and, focusing research and development efforts on the technical challenges facing stabilization.

The surveillance and maintenance, stabilization, and deactivation activities, including those associated with the reduction of the mortgage, are conducted with full participation of involved stakeholders. The interests of stakeholder groups encompass environmental protection, individual safety, and proper management of surplus facilities located across the country including those near large metropolitan areas. These interests focus on activities with major facilities located in California, Idaho, South Carolina, Tennessee, and Washington.

In FY 1998, the budget supports site characterization, parametric cost comparison studies, and conceptual studies necessary to construct a dry transfer capability and procure a dry storage system for spent nuclear fuel at ICPP. Funding (\$107,700,000) is being requested in the privatization portion of the DOE budget for this capability, but a final decision on performing the project using an internal M&O approach versus a privatization approach has not been made. When this decision is finalized, either a line-item new start project will be requested, or the privatization request for proposal will be prepared and a contract for the capability awarded.

The Office of Site Operations encompasses several activities. One of these activities is to provide policy direction for landlord planning and budgeting, including right-sizing infrastructure costs and managing workforce restructuring for Environmental Management (EM). Data will be gathered on total site support costs. These site support costs will be analyzed and benchmarks will be developed and implemented for use in right sizing these "balance of site costs."

The Mound and Pinellas Project Office was established to develop an integrated, systematic approach to site closure requiring an EM-wide effort. The approach developed here will serve as a model for the eventual shutdown and ultimate disposal of the remaining former Defense Programs (DP) sites and other DOE sites slated for cleanup and disposal. The office assumes a leadership role to ensure that DOE exits these sites in a safe, rapid, and a cost-effective manner which is responsive to community and other stakeholder concerns.

Several programs, having impacts across the DOE complex, were formerly budgeted for in other programs. These programs are now budgeted in the Nuclear Material and Facility Stabilization program:

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

- The Transportation Management program has the overall responsibility (except weapons, weapons components, and commercial irradiated fuel) of assuring the proper packaging, shipment, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances.
- The Emergency Management program provides the Department with the capability for preparedness in the event of an operational emergency involving shipments of DOE non-weapon radioactive and hazardous materials in transit. It also provides the Office of Environmental Management with the capability for preparedness in the event of an operational emergency at EM facilities.
- The Characterization Management program is responsible for supporting all EM programs to assure that credible, cost-effective sampling and analytical needs are met.
- The Office of Pollution Prevention coordinates pollution prevention program activities for the entire Department. Its mission is to reduce the generation of all waste streams in order to minimize the impact of the Department's operations on the environment, reduce operational cost, and improve the energy efficiency and health and safety of its operation. Pollution Prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right to Know Act; and Executive Orders 12856 and 12873.

The specific activities to be undertaken by individual sites for FY 1998 depend on their progress in FY 1997 in waste reduction relative to the Department's pollution prevention/waste reduction goals. Activities such as segregation programs for non-contaminated materials and increased recycling of reusable materials will be used to achieve waste reduction. Site-specific Pollution Prevention Plans are being updated by all major sites to reflect activities and funding needed to support the Department-wide goals. These revised plans are due to be submitted to DOE Headquarters by May 31, 1997.

The GOALS of the Nuclear Material and Facility Stabilization program are to:

- Reduce risks:
  - by aggressively stabilizing nuclear materials as implemented in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 94-1.
  - by addressing the need for DOE to stabilize and remediate certain liquids and solids containing fissile materials and other radioactive substances located in spent fuel storage pools, reactor basins, reprocessing canyons, and various other facilities once used for processing and nuclear weapons manufacture.
  - by effectively treating, packaging, and storing spent nuclear fuel located at DOE sites and being returned via the Foreign Research Reactor Spent Fuel Acceptance program.
  - by the timely deactivation of surplus, contaminated facilities.
- Support United States nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

- Lower the mortgage cost of doing business by:
  - spending approximately \$16,700,000 in FY 1997 and \$12,700,000 in FY 1998 on B Plant deactivation activities will reduce surveillance and maintenance costs at the plant will be reduced from approximately \$20,000,000 per year to less than approximately \$3,000,000 per year beginning in FY 1999. The plant then can be transferred to the Environmental Restoration program at the end of CY 1998, 4 years ahead of schedule, resulting in a savings of approximately \$100,000,000 over the original FY 1995 plan.
  - accelerating deactivation activities at the PUREX Facility in FY 1997, the Nuclear Material and Facility Stabilization program was able to complete the deactivation work 1 year ahead of schedule and reduced the annual surveillance and maintenance costs at the facility from \$17,000,000 per year to less than \$2,000,000 per year. The facility is expected to be transferred to the Environmental Restoration program in the near future, well ahead of schedule resulting in an overall savings of approximately \$60,000,000.
- Optimize EM landlord programs to provide safe, reliable, and efficient infrastructure and site services, while reducing support costs and maintaining regulatory compliance.
- Integrate all EM program activities at Mound and Pinellas to manage and expedite closeout and disposition, creating a model for other DOE sites. Except for several long-term groundwater remediation projects, Pinellas will be completely vacated by DOE by mid-FY 1998.
- Assure, on behalf of the Department, the safe, secure, economical, and regulatory-compliant packaging and transportation of DOE materials, including hazardous and radioactive materials and waste, and spent nuclear fuel.
- Provide policy, training, and planning and technical assistance to assure safe and efficient Federal, tribal, state, and local response to emergencies involving DOE unclassified radioactive material.
- Advance EM environmental characterization activities, including analytical services, to a superior level of efficiency, productivity, accountability, and rigor.
- Assure the Department is highly successful in achieving ambitious goals for pollution prevention and waste minimization, including reduction in generation of hazardous, radioactive, mixed, and sanitary wastes, and promotion of significant cost savings and efficiency improvements through recycling.
- Continuously improve EM program effectiveness by assuring consistent Headquarters direction to the field across EM programs, and to assist Headquarters and the field in identifying, negotiating, and resolving crosscutting EM issues.

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

The OBJECTIVES related to these goals are to:

- Achieve progress toward safe, secure, interim dry storage of DOE spent nuclear fuel and resolution of risks and vulnerabilities associated with the fuel by continuing fuel transfer and rack replacement activities at facilities in Idaho, the continued receipt and management of DOE and domestic research reactor fuel at Savannah River, and the stabilization and transfer to dry storage of 2,000 tons of spent nuclear fuel at Richland in FY 1998.
- Meet all applicable Defense Nuclear Facilities Safety Board 94-1 milestones for stabilizing nuclear materials in FY 1998.
- Receive Foreign Research Reactor spent fuel shipments through 2009.
- Identify and establish benchmarks for EM-wide activities.
- Achieve progress toward interim storage of related nuclear materials by continuing the dissolution and stabilization of plutonium sand, slag and crucible and beginning dissolution and stabilization of plutonium scrub alloy at Savannah River; and by removing 253 Kg of plutonium from solution and immobilizing up to 1,678 Kg of bulk plutonium residues at Richland in FY 1998.
- Plan and accomplish deactivation projects at facilities where it has been demonstrated that significant mortgage reduction opportunities exist, including the B Plant at Richland in FY 1998.
- Meet statutory and regulatory compliance commitments.
- Progress towards meeting the Department's six pollution prevention goals by December 31, 1999. They are as follows:
  - Reduce by 50 percent the generation of radioactive waste.
  - Reduce by 50 percent the generation of hazardous waste.
  - Reduce by 50 percent the generation of low-level mixed waste.
  - Reduce by 33 percent the generation of sanitary waste.
  - Recycle 33 percent of sanitary waste from all operations.
  - Increase procurement of EPA-designated recycled products to 100 percent, except where they are not commercially available at a reasonable price or do not meet performance standards.
- Develop integrated EM-wide positions on proposed legislation and regulations, and assist the Administration in promoting responsible laws.
- Act as the EM National Environmental Policy Act (NEPA) Compliance Officer.
- Improve interagency communication to clarify and streamline the regulatory process.
- Issue guidance for restructured EM approval of cleanup and compliance agreements.
- Provide technical assistance to enhance the effectiveness of the Department's transportation and packaging operations.
- Provide clear and consistent transportation operations and traffic management policy, direction, and guidance, aimed at achieving excellence in operations by ensuring consistent interpretation of external regulations, Departmental policies, and guidance.
- Provide a single point for communication between Headquarters and each site on transportation operations and traffic management issues that crosscut DOE organizations (excluding weapons and weapons components).

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

- Develop a program plan to achieve the Department's pollution prevention goals and manage the field's site-wide pollution prevention programs to more effectively achieve these goals.
- Ensure workforce restructuring initiatives are adequately analyzed and supported by EM at sites with an EM presence.

### PERFORMANCE MEASURES:

The performance measures are utilized by both Headquarters and field personnel to evaluate the effectiveness and efficiency of the accomplishments of the Nuclear Material and Facility Stabilization program. These measures are designed to demonstrate progress in simple and direct terms by providing an outcome-based perspective on actual physical accomplishments. Further, these measures are tied directly to the EM mission, vision, goals and the Ten Year Plan process. However, because of the Ten Year Plan, EM is still developing a comprehensive set of performance measures.

The following mission accomplishment measures will be utilized:

- Number of buildings deactivated.
  - 1 building will be fully deactivated (B Plant) in FY 1998.
- Nuclear materials stabilized (in kilograms).
  - 253 Kg of plutonium will be precipitated from solution at Richland in FY 1998.
  - 1,678 Kg of 2,176 Kg of bulk plutonium residues will be stabilized at Richland in FY 1998.
  - Repackage 240 items of plutonium in FY 1998 at Savannah River.
- Nuclear materials disposition ready (in kilograms).
- Spent nuclear fuel stabilized (in metric tons heavy metal and in cubic meters).
  - 1.13 MTHM of spent fuel will be removed from CPP-603 at Idaho in FY 1998.
  - 172 MTHM of spent fuel will be stabilized at Richland in FY 1998.
- Spent nuclear fuel disposition ready (in metric tons heavy metal and in cubic meters).
- Foreign Research Reactor (FRR) fuel accepted (in metric tons heavy metal and in cubic meters).
  - 2 FRR shipments will be received at Idaho.
  - 34 casks of FRR will be received at Savannah River.
- Develop "Balance of Site Benchmark."
- Number of pollution prevention projects implemented and costs saved or avoided by these projects (number of projects; and costs savings or avoidances).
- The volume (for radioactive waste) or weight of (for non-radioactive waste) generated and reduced for mixed waste, radioactive waste (broken out by type: high-level, low-level, and transuranic), hazardous waste, and sanitary wastes (cubic meters, m3, kilograms, kg)
- The weight of toxic chemicals released and transferred offsite (kilograms, kg).

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

- Complete DOE exit from the Pinellas site by mid-FY 1998, except for several long-term groundwater remediation projects.
- Land and buildings releasable for disposition (percentage of total) (Mound).
- Radioactive nuclear and hazardous waste removed (cubic meters) (Mound).
- Potential release (contamination) sites resolved (number of sites) (Mound).

Not surprisingly, the types and forms of materials present in former defense production facilities, as well as highly specialized equipment, represent safety and security concerns beyond those risks discussed above. The requirements for providing safeguards and security to prevent people from getting hurt and material and equipment from being diverted (e.g. by terrorist groups) are very costly both in human resources and dollars. An active program has been established to identify, plan, and accomplish projects that will safely store nuclear materials in a manner that will reduce these funding requirements. Specific guidance for Environmental Management's Safeguards and Security program is provided to ensure optimal, cost-efficient implementation of DOE safeguards and security policy.

Some of the most noteworthy facilities and materials under the Office of Nuclear Material and Facility Stabilization program include:

- 5 nuclear reactors
- 17 high level radioactive processing buildings
- 3,000 surplus buildings
- 2,700 metric tons heavy metal of spent nuclear fuel
- 38.8 million liters of acid containing radioactive contaminants
- Several thousand kilograms of plutonium in various forms
- 10,000 packages of plutonium materials and waste
- 75 million curies of cesium and strontium

## PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

### FISCAL YEAR 1998 BUDGET STRUCTURE

The Nuclear Material and Facility Stabilization's program budget is contained in five appropriation accounts. The first appropriation, the Defense Environmental Restoration and Waste Management, focuses on activities related to the management and stabilization of weapons related facilities; policy direction for landlord, characterization and transportation management, emergency management and pollution prevention. The second appropriation, Energy Supply, Research and Development, focuses on DOE activities independent of the weapons related program. The third and fourth appropriations are associated with the National Defense Asset Acquisition and the Energy Assets Acquisition which includes construction, major rehabilitation and the purchase of major items such as land or buildings supporting the Defense Environmental Restoration and Waste Management and the Energy Supply, Research and Development appropriations. The fifth appropriation, the Defense Environmental Management Privatization, is an initiative to change the acquisition strategy for selected projects and activities from cost plus contracting via the Management and Operating contractors, to fixed-price open competition.

Within each appropriation, the Nuclear Material and Facility Stabilization program accomplishes its mission by funding activities through various budget functions. The Defense Environmental Restoration and Waste Management appropriation funds activities in the following eleven categories:

1. Surveillance and Maintenance

Funds all activities that maintain surplus and transferred buildings with required functions (i.e., surveillance and maintenance of fire, safety and life support systems, building support, and essential services as specified by Operational Safety Requirements). This category includes system/facility monitoring, corrective and preventive maintenance.

2. Stabilization

Funds all activities where the intent is to convert nuclear material to a stable form suitable for storage, either safe interim or long-term, depending upon the programmatic plans for the material. This would include staging, preparation, and operations actions. These actions are taken to both manage and reduce risks.

3. Deactivation

Funds all activities where the intent is to minimize the risks, hazards, and associated costs at facilities and to make those facilities available for potential recuse or eventual decontamination and decommissioning. While these activities can include material handling and movement activities similar to stabilization (but not processing), the intent of such activity is not to achieve an end point (or interim end point) for the material, but to remove the material with the goal of readying the facility/system for the preferred end state.

PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)



4. Program Support

Funds all costs for direct and indirect activities that provide technical support; costs for program management activities connected with landlord, remedial actions required at inactive/surplus facilities, minimization of generated waste, and funds training at DOE nuclear weapons and related sites under the Hazardous Waste Operation and Emergency Response (HAZWOPER) program.

5. Site-Wide Landlord

Funds all activities for support of overall site-wide management of construction projects, procurement of capital equipment, site development, and project planning activities and capital assets management activities. Also, supports the Hazardous Materials Management and Emergency Facility (HAMMER).

6. Mound and Pinellas Project Office

Funds all activities associated with the deactivation, cleanup, operations and disposition of former defense facilities at the Mound and Pinellas sites.

7. Environmental and Regulatory Analysis

Funds all activities associated with developing EM-wide positions on proposed legislation, regulations and compliance agreements and assisting the Administration on promoting responsible laws.

8. Transportation Management

Funds all activities associated with the management of the DOE-wide transportation management program including development and implementation of policies and procedures for all DOE unclassified shipping activities, develops technologies to foster safe, efficient, and cost-effective transportation systems.

9. Emergency Management

Funds all activities related to independent monitoring and assessment, programmatic guidance and policy, integrated and independent performance analysis and technical assistance for EM activities in the areas of transportation and facilities emergency management.

PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE (Continued)

10. Characterization Management

Funds all activities related to the enhancement and effective management of DOE's analytical resources and assuring technical validity and cost-effectiveness of EM sampling and analysis programs.

11. Pollution Prevention

Funds all activities for the Department-wide pollution prevention program crosscutting all sites, including planning, policy, development, etc. associated with the pollution prevention program.

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FY 1998 CONGRESSIONAL BUDGET REQUEST  
DEFENSE ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT  
(Dollars in thousands)

PROGRAM FUNDING PROFILE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Subprogram</u>	FY 1996 Current <u>Appropriation</u>	FY 1997 Original <u>Appropriation</u>	FY 1997 <u>Adjustments</u>	FY 1997 Current <u>Appropriation</u>	FY 1998 Budget <u>Request</u>	FY 1999* <u>Target</u>
Surveillance and Maintenance .....	\$ 698,633	\$ 556,825	\$ 0	\$ 556,825	\$ 553,411	
Stabilization .....	168,299	284,169	0	284,169	283,907	
Deactivation .....	46,819	36,570	0	36,570	27,147	
Program Support .....	53,620	11,948	0	11,948	12,748	
Site-Wide Landlord .....	233,735	98,957	0	98,957	112,143	
Mound and Pinellas Project Office .....	92,620	142,360	0	142,360	86,264	
Environmental and Regulatory Analysis ..	0	772	0	772	1,500	
Transportation Management .....	0	9,492	0	9,492	11,393	
Emergency Management .....	0	3,039	0	3,039	2,650	
Characterization Management .....	0	6,042	0	6,042	5,329	
Pollution Prevention .....	0	23,544	0	23,544	21,622	
Program Direction .....	<u>97,683</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Subtotal, Operations and Maintenance ...	1,391,409	1,173,718	0	1,173,718	1,118,114	1,006,000
Construction .....	<u>118,961</u>	<u>123,872</u>	<u>0</u>	<u>123,872</u>	<u>0</u>	<u>0</u>
TOTAL. ....	<u>\$1,510,370</u>	<u>\$1,297,590</u>	<u>\$ 0</u>	<u>\$1,297,590</u>	<u>\$1,118,114</u>	<u>\$1,006,000</u>

Public Law Authorizations

95-95, Department of Energy Organization Act (1977)

104-206, The Energy and Water Development Appropriations Act, Fiscal Year 1997

104-201, National Defense Authorization Act, Fiscal Year 1997

\* The FY 1999 distribution by program may change based on Environmental Management's Ten Year Plan.

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DEFENSE ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT  
(Dollars in thousands)

PROGRAM FUNDING BY SITE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices/Sites</u>	<u>FY 1996 Current Appropriation</u>	<u>FY 1997 Original Appropriation</u>	<u>FY 1997 Adjustments</u>	<u>FY 1997 Current Appropriation</u>	<u>FY 1998 Budget Request</u>
<b>ALBUQUERQUE OPERATIONS OFFICE</b>					
Los Alamos National Laboratory (NM) .....	\$15,074	\$14,244	\$ 0	\$14,244	\$14,400
Albuquerque Operations Office (NM) .....	6,019	5,587	0	5,587	5,614
Pinellas Plant (FL) .....	44,309	59,003	0	59,003	4,120
Sandia National Laboratories (NM) .....	0	5,173	0	5,173	4,848
Grand Junction (CO) .....	<u>0</u>	<u>200</u>	<u>0</u>	<u>200</u>	<u>0</u>
Subtotal, ALBUQUERQUE .....	\$65,402	\$84,207	0	\$84,207	\$28,982
<b>CHICAGO OPERATIONS OFFICE</b>					
Argonne National Laboratory (East) (IL) .....	\$ 56	\$ 115	\$ 0	\$ 115	\$ 0
Brookhaven National Laboratory (IL) .....	124	20	0	20	0
Chicago Operations Office (IL) .....	<u>132</u>	<u>2,317</u>	<u>0</u>	<u>2,317</u>	<u>2,660</u>
Subtotal, CHICAGO .....	\$ 312	\$ 2,452	\$ 0	\$ 2,452	\$ 2,660
<b>IDAHO OPERATIONS OFFICE</b>					
Lockheed Idaho Technology Co. (ID) .....	\$120,433	\$163,572	\$ 0	\$163,572	\$139,244
Idaho Operations Office (ID) .....	<u>4,282</u>	<u>21,047</u>	<u>0</u>	<u>21,047</u>	<u>13,319</u>
Subtotal, IDAHO .....	\$124,715	\$184,619	\$ 0	\$184,619	\$152,563

PROGRAM FUNDING BY SITE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices/Sites</u>	<u>FY 1996 Current Appropriation</u>	<u>FY 1997 Original Appropriation</u>	<u>FY 1997 Adjustments</u>	<u>FY 1997 Current Appropriation</u>	<u>FY 1998 Budget Request</u>
NEVADA OPERATIONS OFFICE					
Nevada Test Site (NV) .....	\$ 0	\$ 500	\$ 0	\$ 500	\$ 200
Nevada Operations Office (NV) .....	<u>0</u>	<u>320</u>	<u>0</u>	<u>320</u>	<u>2,339</u>
Subtotal, NEVADA .....	\$ 0	\$ 820	\$ 0	\$ 820	\$ 2,539
OAKLAND OPERATIONS OFFICE					
Lawrence Livermore National Laboratory (CA) ...	\$ 225	\$ 2,285	\$ 0	\$ 2,285	\$ 998
Oakland Operations Office (CA) .....	<u>11,403</u>	<u>200</u>	<u>0</u>	<u>200</u>	<u>0</u>
Subtotal, OAKLAND .....	\$ 11,628	\$ 2,485	\$ 0	\$ 2,485	\$ 998
OAK RIDGE OPERATIONS OFFICE					
Oak Ridge National Laboratory (TN) .....	\$ 80	\$ 4,419	\$ 0	\$ 4,419	\$ 4,325
K-25 Site (TN) .....	686	5,091	0	5,091	4,721
Oak Ridge Operations Office (TN) .....	<u>70</u>	<u>211</u>	<u>0</u>	<u>211</u>	<u>150</u>
Subtotal, OAK RIDGE .....	\$ 836	\$ 9,721	\$ 0	\$ 9,721	\$ 9,196
OHIO FIELD OFFICE					
Mound Plant (OH) .....	\$ 48,311	\$ 83,357	\$ 0	\$ 83,357	\$ 82,144
Ohio Field Office (OH) .....	<u>3,605</u>	<u>270</u>	<u>0</u>	<u>270</u>	<u>500</u>
Subtotal, OHIO .....	\$ 51,916	\$ 83,627	\$ 0	\$ 83,627	\$ 82,644
PITTSBURGH ENERGY TECHNOLOGY CENTER					
(PA) .....	\$ 1,540	\$ 1,810	\$ 0	\$ 1,810	\$ 1,285

PROGRAM FUNDING BY SITE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices/Sites</u>	<u>FY 1996 Current Appropriation</u>	<u>FY 1997 Original Appropriation</u>	<u>FY 1997 Adjustments</u>	<u>FY 1997 Current Appropriation</u>	<u>FY 1998 Budget Request</u>
RICHLAND OPERATIONS OFFICE					
Pacific Northwest Laboratory (WA) .....	\$ 2,651	\$ 575	\$ 0	\$ 575	\$ 0
Hanford Site (WA) .....	133,344	346,885	0	346,885	302,332
Richland Operations Office (WA) .....	<u>70,476</u>	<u>19,014</u>	<u>0</u>	<u>19,014</u>	<u>24,314</u>
Subtotal, RICHLAND .....	\$206,471	\$366,474	\$ 0	\$366,474	\$326,646
ROCKY FLATS FIELD OFFICE					
Rocky Flats Plant (CO) .....	\$398,706	\$ 0	\$ 0	\$ 0	\$ 0
Rocky Flats Field Office (CO) .....	<u>38,585</u>	<u>650</u>	<u>0</u>	<u>650</u>	<u>600</u>
Subtotal, ROCKY FLATS .....	\$437,291	\$ 650	\$ 0	\$ 650	\$ 600
SAVANNAH RIVER OPERATIONS OFFICE					
Savannah River Site (SC) .....	\$467,189	\$495,442	\$ 0	\$495,442	\$441,036
Wackenhut Services, Inc (SC). .....	52,735	50,000	0	50,000	51,292
Savannah River Operations Office (SC) .....	<u>74,182</u>	<u>250</u>	<u>0</u>	<u>250</u>	<u>0</u>
Subtotal, SAVANNAH RIVER .....	\$594,106	\$545,692	\$ 0	\$545,692	\$492,328
HEADQUARTERS					
Headquarters (D.C.) .....	<u>\$ 16,153</u>	<u>\$ 15,033</u>	<u>\$ 0</u>	<u>\$ 15,033</u>	<u>\$ 17,673</u>
TOTAL, NUCLEAR MATERIAL AND FACILITY STABILIZATION .....	<u>\$1,510,370</u>	<u>\$1,297,590</u>	<u>\$ 0</u>	<u>\$1,297,590</u>	<u>\$1,118,114</u>

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DEFENSE ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT  
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PROGRAM FUNDING BY FUND TYPE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices</u>	FY 1996 Current <u>Appropriation</u>	FY 1997 Original <u>Appropriation</u>	FY 1997 <u>Adjustments</u>	FY 1997 Current <u>Appropriation</u>	FY 1998 Budget <u>Request</u>
<b>ALBUQUERQUE OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 63,469	\$ 83,607	\$ 0	\$ 83,607	\$ 28,982
Capital Equipment .....	683	241	0	241	0
General Plant Projects .....	<u>1,250</u>	<u>359</u>	<u>0</u>	<u>359</u>	<u>0</u>
Subtotal, ALBUQUERQUE .....	\$ 65,402	\$ 84,207	\$ 0	\$ 84,207	\$ 28,982
<b>CHICAGO OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 312	\$ 2,452	\$ 0	\$ 2,452	\$ 2,660
<b>IDAHO OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 83,640	\$144,639	\$ 0	\$144,639	\$127,798
Capital Equipment .....	8,994	10,384	0	10,384	10,043
General Plant Projects .....	4,390	7,174	0	7,174	14,722
Construction .....	<u>27,691</u>	<u>22,422</u>	<u>0</u>	<u>22,422</u>	<u>0</u>
Subtotal, IDAHO .....	\$124,715	\$184,619	\$ 0	\$184,619	\$152,563
<b>NEVADA OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 0	\$ 820	\$ 0	\$ 820	\$ 2,539

PROGRAM FUNDING BY FUND TYPE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices</u>	<u>FY 1996 Current Appropriation</u>	<u>FY 1997 Original Appropriation</u>	<u>FY 1997 Adjustments</u>	<u>FY 1997 Current Appropriation</u>	<u>FY 1998 Budget Request</u>
<b>OAKLAND OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 9,628	\$ 2,485	\$ 0	\$ 2,485	\$ 998
Construction .....	<u>2,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal, OAKLAND .....	\$ 11,628	\$ 2,485	\$ 0	\$ 2,485	\$ 998
<b>OAK RIDGE OPERATIONS OFFICE</b>					
Operating Expenses .....	\$ 836	\$ 9,483	\$ 0	\$ 9,483	\$ 9,196
Capital Equipment .....	<u>0</u>	<u>238</u>	<u>0</u>	<u>238</u>	<u>0</u>
Subtotal, OAK RIDGE .....	\$ 836	\$ 9,721	\$ 0	\$ 9,721	\$ 9,196
<b>OHIO FIELD OFFICE</b>					
Operating Expenses .....	\$ 50,839	\$ 79,527	\$ 0	\$ 79,527	\$ 82,644
Capital Equipment .....	77	714	0	714	0
General Plant Projects .....	<u>1,000</u>	<u>3,386</u>	<u>0</u>	<u>3,386</u>	<u>0</u>
Subtotal, OHIO .....	\$ 51,916	\$ 83,627	\$ 0	\$ 83,627	\$ 82,644
<b>PITTSBURGH ENERGY TECHNOLOGY CENTER</b>					
Operating Expenses .....	\$ 1,540	\$ 1,810	\$ 0	\$ 1,810	\$ 1,285
<b>RICHLAND OPERATIONS OFFICE</b>					
Operating Expenses .....	\$192,279	\$276,380	\$ 0	\$276,380	\$306,941
Capital Equipment .....	8,191	14,437	0	14,437	17,627
General Plant Projects .....	2,501	5,585	0	5,585	2,078
Construction .....	<u>3,500</u>	<u>70,072</u>	<u>0</u>	<u>70,072</u>	<u>0</u>
Subtotal, RICHLAND .....	\$206,471	\$366,474	\$ 0	\$366,474	\$326,646



PROGRAM FUNDING BY FUND TYPE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

<u>Field Offices</u>	<u>FY 1996 Current Appropriation</u>	<u>FY 1997 Original Appropriation</u>	<u>FY 1997 Adjustments</u>	<u>FY 1997 Current Appropriation</u>	<u>FY 1998 Budget Request</u>
ROCKY FLATS FIELD OFFICE					
Operating Expenses .....	\$361,575	\$ 650	\$ 0	\$ 650	\$ 600
Capital Equipment .....	4,814	0	0	0	0
General Plant Projects .....	2,662	0	0	0	0
Construction .....	<u>68,240</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal, ROCKY FLATS .....	\$437,291	\$ 650	\$ 0	\$ 650	\$ 600
SAVANNAH RIVER OPERATIONS OFFICE					
Operating Expenses .....	\$528,525	\$496,383	\$ 0	\$496,383	\$475,843
Capital Equipment .....	29,971	8,279	0	8,279	12,340
General Plant Projects .....	18,080	9,652	0	9,652	4,145
Construction .....	<u>17,530</u>	<u>31,378</u>	<u>0</u>	<u>31,378</u>	<u>0</u>
Subtotal, SAVANNAH RIVER .....	\$594,106	\$545,692	\$ 0	\$545,692	\$492,328
HEADQUARTERS					
Operating Expenses .....	\$ 16,153	\$ 15,033	\$ 0	\$ 15,033	\$ 17,673
TOTAL, NUCLEAR MATERIAL AND					
FACILITY STABILIZATION .....	<u>\$1,510,370</u>	<u>\$1,297,590</u>	<u>\$ 0</u>	<u>\$1,297,590</u>	<u>\$1,118,114</u>

U.S. DEPARTMENT OF ENERGY  
FY 1998 CONGRESSIONAL BUDGET REQUEST  
DEFENSE ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

NUCLEAR MATERIAL AND FACILITY STABILIZATION  
(Dollars in Thousands)

ALBUQUERQUE

I. Mission Supporting Goals and Objectives:

The Albuquerque Operations Office manages seven sites (Sandia National Laboratories, Albuquerque; Sandia National Laboratories, Livermore; Los Alamos National Laboratory; Grand Junction Projects Office; Kansas city Plant; Pantex Plant; and Pinellas Plant) in six states (California, Colorado, Florida, Kansas, New Mexico, and Texas). The Office of Nuclear Material and Facility Stabilization coordinates stabilization activities with the Albuquerque Operations Office at the Los Alamos National Laboratory (LANL) in New Mexico.

The LANL has been designated the lead laboratory for research and development efforts to support the DOE response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 94-1. In this capacity, LANL provides solutions to complex-wide technical and operational issues associated with stabilization and storage of plutonium and other nuclear materials.

The Pinellas Plant is a 97 acre site located in Pinellas County, Florida, about 6 miles from the city of St. Petersburg. The Pinellas Plant was an essential part of the Nation's defense nuclear weapons complex until production of weapons-related components was discontinued in September 1994. The plant manufactured neutron generators, miniaturized linear accelerators, and other high-technology nuclear components. In 1995, the Pinellas Plant was sold to the Pinellas County Industrial Council, and DOE leased back portions of the plant to complete final environmental remediation of the plant site which, except for several residual long-term groundwater remediation projects, is scheduled to be completed by the end of FY 1997. Legal drivers at Pinellas include Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Resource Conservation and Recovery Act (RCRA), National Environmental Policy Act (NEPA), DOE Orders, Florida State laws and codes and Agreements-in-Principle (AIP). The mission of the Pinellas Plant involves completion of safe shutdown of the Defense Programs activities, removal of tritium and tritium contaminated processing equipment, disposition of all personal property and records, termination of its management and operating contract, and completion of environmental restoration activities. In FY 1998, DOE will complete all residual administrative closeout activities and, except for the groundwater remediation projects, will vacate the site by mid-year. The remaining remediation projects will be overseen by another Albuquerque site.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Albuquerque (Continued)

Albuquerque will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost from the Albuquerque sites. Albuquerque is also the center of excellence for the Department's complex-wide projects. The complex-wide Pollution Prevention projects are specific initiatives, tasks or products designed to stimulate pollution prevention across all DOE sites. These include training to identify waste reduction opportunities, tracking software for recycled materials (affirmative procurement) purchases, scrap metals recycling guidance, and the annual conference for site pollution prevention representatives. Pollution prevention is required by various federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention Programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. The Albuquerque Operations Office provides transportation and packaging research, risk assessment, development, testing, and evaluation program support with state-of-the-art technology, systems, tools and expertise focused to address transportation and packaging of hazardous materials, particularly spent fuel and wastes. This office will also provide assistance in the development of transportation packaging guides, standards, and requirements, and regional emergency management planning, training, and technical assistance coordination. Also, this office provides support to transportation technical and regional professional forums of key stakeholders for corporate transportation planning.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. Albuquerque will develop more streamlined and less expensive approaches for evaluating laboratory data and consolidate analytical services at widely dispersed field office.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Albuquerque

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	223	0	0	0	0%
Stabilization .....	14,436	14,774	14,400	-374	-3%
Program Support .....	3,425	0	0	0	0%
Program Direction .....	3,009	0	0	0	0%
Pinellas Project Office .....	44,309	59,003	4,120	-54,883	-93%
Transportation Management .....	0	4,643	4,848	+205	+4%
Emergency Management .....	0	40	150	+110	+275%
Characterization Management .....	0	740	140	-600	-81%
Pollution Prevention .....	0	5,007	5,324	+317	+6%
 TOTAL, Albuquerque .....	 \$65,402	 \$84,207	 \$28,982	 \$-55,225	 -66%

### III. Performance Summary - Accomplishments

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Surveillance and Maintenance</u></b>			
• Conducted surveillance and maintenance for Technical Area (TA)-21 facilities.	223	0	0
 TOTAL, Surveillance and Maintenance	 \$223	 \$0	 \$0

#### **Stabilization**

• Long-term storage packaging criteria were developed in FY 1996. The research and development (R&D) programs to define standards, procedures, and methods for plutonium storage, packaging, surveillance and monitoring are in progress in FY 1997 and will continue in FY 1998.	683	700	450
• In FY 1996, provide research and development on stabilization process alternatives for plutonium oxide-like materials, solutions, salts, and combustibles. In FY 1997 and FY 1998, continue activities described in FY 1996.	10,952	9,272	5,910

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments - Albuquerque

#### **Stabilization** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>A Core Technology Program which supports the Office of Environmental Management's nuclear material and stabilization mission was implemented in FY 1996. This program focuses on the development of core technologies related to the fundamental chemistry and materials issues involved in nuclear materials stabilization. This activity is continuing in FY 1997 and FY 1998.</li> </ul>	2,801	4,272	3,003
<ul style="list-style-type: none"> <li>In FY 1996 and FY 1997, no activity. In FY 1998, formulate authorization bases for selected stabilization treatments using the modular design concepts.</li> </ul>	0	0	2,906
<ul style="list-style-type: none"> <li>In FY 1996 and FY 1997, no activity. In FY 1998, initiate criticality experiments and training.</li> </ul>	0	0	2,131
<ul style="list-style-type: none"> <li>In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, provide followup technical support related to the closeout of spent nuclear fuel Project Quality Assurance program audit issues. Also, provide technology development support for the National Spent Nuclear Fuel program. In FY 1998, funds are requested at Idaho to support the National Spent Nuclear Fuel program. These funds will be distributed as needed to support the National Program.</li> </ul>	0	530	0
TOTAL, Stabilization	<u>\$14,436</u>	<u>\$14,774</u>	<u>\$14,400</u>

#### **Program Support**

<ul style="list-style-type: none"> <li>Provided technical expertise for program reviews to program managers, Office of Nuclear Material and Facility Stabilization. Beginning in FY 1997, these activities are budgeted in the Program Direction account.</li> </ul>	3,425	0	0
TOTAL, Program Support	<u>\$3,425</u>	<u>\$0</u>	<u>\$0</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Albuquerque

#### **Program Direction**

- Provided funding for FTE Federal employees for management and oversight of the Nuclear Material and Facility Stabilization activities, milestones, and performance measures. Beginning in FY 1997, these activities are budgeted in the Program Direction account.

TOTAL, Program Direction

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
3,009	0	0
<u>\$3,009</u>	<u>\$0</u>	<u>\$0</u>

#### **Pinellas Project Office**

- In FY 1996, provided for: Pinellas base landlord costs; site deactivation and transition activities including removal of nuclear materials, equipment, records and other personal property; treatment and disposal of radioactive, hazardous and mixed waste; and long-term groundwater remediation activities. In FY 1997, increase due to contractor worker benefits associated with workforce restructuring such as severance pay, displaced worker medical and life insurances, early retirement pensions, retraining and outplacement services and additional deactivation and transition activities. In FY 1998, will complete all residual administrative closeout activities, except the long-term groundwater remediation projects, and vacate the site by mid-year.

TOTAL, Pinellas Project Office

44,309	59,003	4,120
<u>\$44,309</u>	<u>\$59,003</u>	<u>\$4,120</u>

#### **Transportation Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, technical analyses and studies are being conducted for transportation and packaging standards development, development of national and international radioactive transportation and packaging regulations; development of engineering analyses and design tools and the investigation of new materials for development of packagings to improve the safety and reduce

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Albuquerque

#### **Transportation Management** (Continued)

the overall costs associated with the transportation of unique radioactive materials; continue to operate and provide maintenance and user support for tools used in the performance of transportation risk analyses in support of Environmental Assessments/Environmental Impact Statements and in responding to congressional/public inquiries on the Department's transportation activities; work was completed on the study on the "Safety of Shipments of Plutonium by Sea"; and regional surveys are being conducted on the perception of risk concerning spent nuclear fuel shipments. In FY 1998, activities will continue on standards development and interaction with the International Atomic Energy Agency and other regulatory bodies on issues dealing with transportation and packaging regulations; continue on the analyses of potential packaging materials; continue to operate and maintain the risk analyses tools; and continue coordinating policy with the Western Governor's Association, and the Southern States Energy Board on DOE hazardous/radioactive material shipments.

TOTAL, Transportation Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	4,643	4,848
<hr/> \$0	<hr/> \$4,643	<hr/> \$4,848

#### **Emergency Management**

- In FY 1996 funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program. In FY 1998, activities will include the completion the TEPP program and focus attention to a technical assistance program which provides resources for the development and standardization of equipment and response resources, the conduct of drills and exercises, and other support to Federal agencies, State, tribal and local governments in preparation for a response to transportation accidents that may involve DOE radioactive materials.

TOTAL, Emergency Management

0	40	150
<hr/> \$0	<hr/> \$40	<hr/> \$150

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Albuquerque

#### **Characterization Management**

- In FY 1996 funds were appropriated in the Compliance and Program Coordination budget. In FY 1997 activities will focus on the following; (1) develop and evaluate resource management privatization issues; (2) enhance communication of DOE sample management policy and guidance; (3) update the DOE EM Electronic Data Deliverable Master Specification (DEEMS); and (4) develop background information and data used to support DOE policy development and guidance associated with the return of analytical laboratory waste from non-Government-Owned/Contractor-Operated (GOCO) laboratories. In FY 1998, perform a limited number of assessments to evaluate the performance of the field offices in meeting EMs commitments to better manage Characterization Management and will provide information to future decisions regarding any necessary corrective actions.

TOTAL, Characterization Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	740	140
<u>\$0</u>	<u>\$740</u>	<u>\$140</u>

#### **Pollution Prevention**

- In FY 1996, funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs at its sites including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects, and 6) to realize life cycle cost savings from all their pollution prevention projects greater than the pollution prevention budget. In FY 1998, select, fund, and manage projects that benefit multiple sites/operations offices. Albuquerque will coordinate with other Headquarters and operations offices to select complex-wide projects and determine funding levels.

TOTAL, Pollution Prevention

TOTAL, ALBUQUERQUE

0	5,007	5,324
<u>\$0</u>	<u>\$5,007</u>	<u>\$5,324</u>
\$65,402	\$84,207	\$28,982



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Albuquerque

- The net decrease in the stabilization category is due to the following: the National Spent Nuclear Fuel program funding being requested at Idaho (\$-530,000); completion of R&D studies and deployment of technologies to the end-use sites (\$-4,881,000); an increase in funding to formulate authorization bases for selected stabilization treatments (\$+2,906,000); and to support criticality experiments and training (\$+2,131,000). -374
- Reduction in Pinellas landlord and cleanup costs are due to completed plant cleanup and exit activities. -54,883
- Increase in Transportation Management funding is due to a coordinating policy effort with the Western Governor's Association and the Southern States Energy Board on DOE hazardous/radioactive material shipments. +205
- Increase in Emergency Management funding is due to focusing attention to a technical assistance program for State, tribal, and local governments. +110
- Decrease in Characterization Management funding is due to completion of background information in data used to support DOE policy development and guidance associated with the return of analytical laboratory waste from non-GOCO laboratories. -600
- Increase in Pollution Prevention funding is due to expansion of the function to manage the complex-wide pollution prevention projects program. +317

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

CHICAGO

I. Mission Supporting Goals and Objectives:

The Chicago Operations Office manages the Nuclear Material and Facility Stabilization program activities at the Argonne National Laboratory-East (ANL-E) and the Brookhaven National Laboratory (BNL).

ANL-E occupies a 1,700-acre tract of land located approximately 22 miles southwest of downtown Chicago in DuPage County, Illinois. The ANL-E is committed to conducting its research activities in a manner that complies fully with applicable Federal and State regulations governing worker health and safety and protection of the environment.

Brookhaven National Laboratory (BNL) is a multipurpose research and development laboratory located in central Suffolk County on Long Island about 60 miles east of New York City. The site occupies about 8.3 square miles, which is mostly wooded, except for a developed area of about 2.6 square miles. The BNL directs scientific and technical efforts, including low and high energy physics, life sciences, and nuclear medicine research.

Chicago Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. This office also supports regional emergency management planning, training, and technical assistance coordination. Also, this office provides regional stakeholder involvement forums for corporate transportation planning.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. The Chicago Operations Office will assist in the integration of results from multi-agency proficiency testing programs to support consolidation of the laboratory accreditation activities.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Chicago

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	\$180	\$0	\$0	\$0	0%
Stabilization .....	0	65	0	-65	-100%
Program Direction .....	107	0	0	0	0%
Program Support .....	25	50	0	-50	-100%
Transportation Management .....	0	30	110	+80	+267%
Emergency Management .....	0	150	150	0	0%
Characterization Management .....	0	800	700	-100	-13%
Pollution Prevention. ....	0	1,357	1,700	+343	+25%
 TOTAL, Chicago .....	 \$312	 \$2,452	 \$2,660	 \$+208	 \$+8%

### III. Performance Summary - Accomplishments

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Surveillance and Maintenance</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, the Argonne National Laboratory-East and the Brookhaven National Laboratory developed site-wide transition strategies and site priorities, planning, budgeting, performance measurement documentation, and sampled and analyzed soil around six tanks identified as high rankers through the Surplus Facility Inventory Assessment. In FY 1997, no activity. In FY 1998, no activity.</li> </ul>	180	0	0
 TOTAL, Surveillance and Maintenance	 \$180	 \$0	 \$0
<b><u>Stabilization</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, compile the status of Spent Nuclear Fuel vulnerability corrective actions and continue support for the Storage and Disposal Assessment Teams. These activities are performed in support of the National Spent Nuclear Fuel program. In FY 1998, funds are requested at Idaho to support the National Spent Nuclear Fuel program. These funds will be distributed as needed to support the National Program.</li> </ul>	0	65	0
 TOTAL, Stabilization	 \$0	 \$65	 \$0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Chicago

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Program Direction</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, provided salaries, benefits, travel, and training to Federal employees for oversight and management of the contractor workforce responsible for performing Nuclear Material and Facility Stabilization activities for the Department of Energy at the Chicago Operations Office. Beginning in FY 1997, these activities are budgeted in the Program Direction account.</li> </ul>	107	0	0
TOTAL, Program Direction	<u>\$107</u>	<u>\$0</u>	<u>\$0</u>
<b><u>Program Support</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, provided technical support to a critical analysis of an Activity Based Costing (ABC) estimate of transition costs at the Fast Flux Test Facility (FFTF) and performed a critical analysis of an estimate contained in a conceptual design report for the Plutonium Finishing Plant. In FY 1997, no activity. In FY 1998, no activity.</li> </ul>	25	0	0
<ul style="list-style-type: none"> <li>In FY 1996, no activity. In FY 1997, provide technical support in benchmarking, business process re-engineering and DOE operating requirements to accomplishment the overall study goal of improving facility maintenance cost performance at DOE sites. In FY 1998, no activity.</li> </ul>	0	50	0
TOTAL, Program Support	<u>\$25</u>	<u>\$50</u>	<u>\$0</u>
<b><u>Transportation Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, continue activities to provide support to the outreach program to educate the public on the risks associated with the DOE transportation of hazardous/radioactive materials. In FY 1998, work will continue to educate the public and to coordinate transportation issues relating to public acceptability of the transportation of hazardous material through their communities with the Northeast and Midwest Council of State Governments.</li> </ul>	0	30	110
TOTAL, Transportation Management	<u>\$0</u>	<u>\$30</u>	<u>\$110</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Chicago

#### **Emergency Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program. In FY 1998, activities will include the completion of the TEPP program and focus attention on a technical assistance program for State, Tribal, and local governments.

TOTAL, Emergency Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	150	150
<u>\$0</u>	<u>\$150</u>	<u>\$150</u>

#### **Characterization Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997 funding is provided to relocate the Integrated Performance Evaluation Program (IPEP) from Argonne National Laboratory to the Radiological Environmental Sciences Laboratory (RESL) in Idaho, and to provide support to RESL from the Argonne staff. In FY 1998, funding is provided to continue support to the RESL in the implementation of IPEP.

TOTAL, Characterization Management

0	800	700
<u>\$0</u>	<u>\$800</u>	<u>\$700</u>

#### **Pollution Prevention**

- In FY 1996 funds were appropriated in the Waste Management program. In FY 1997 and FY 1998, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; 5) to implement waste reduction projects.

TOTAL, Pollution Prevention

0	1,357	1,700
<u>\$0</u>	<u>\$1,357</u>	<u>\$1,700</u>

TOTAL, CHICAGO

\$312	\$2,452	\$2,660
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## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Chicago

- Decrease in the stabilization category is due to the National Spent Nuclear Fuel program funding being requested at Idaho. -65
- Increase in Transportation Management funding is due to transportation issues with the Northeast and Midwest Council of State Governments. +80
- Decrease in Characterization Management funding is due to reduced support to the Radiological Environmental Sciences Laboratory (RESL). -100
- Increase in Pollution Prevention funding is due to a transfer of funding from other sites to Chicago for higher priority programmatic activities. +343
- Decrease in Program Support funding is due to completion of the business process re-engineering activity. -50

## NUCLEAR MATERIAL AND FACILITY STABILIZATION (Dollars in Thousands)

### IDAHO

#### I. Mission Supporting Goals and Objectives

The Idaho National Engineering Laboratory (INEL), established in 1949 as the National Reactor Testing Station, is situated on more than 890 square miles of the Snake River Plain in southeastern Idaho. Over the years, 52 reactors have been constructed and operated at the INEL. There are nine primary facilities at the INEL as well as administrative, engineering, and research laboratories in Idaho Falls, approximately 50 miles east of the site.

The Idaho Chemical Processing Plant (ICPP) was built in the 1950's to store and reprocess spent nuclear fuel (SNF) from Government-owned reactors. Fuel receipts have averaged 40 metric tons total mass per year for the past 10 years. The facility has recovered more than \$1 billion worth of highly enriched uranium, which was returned to the Government stockpile. In addition, an innovative high-level liquid waste process, known as calcining, was developed at ICPP.

The 200-acre plant underwent an ambitious modernization during the 1980's, when most major facilities were replaced by safer, cleaner, and more efficient facilities.

In the spring of 1992, the decision to end spent fuel reprocessing eliminated a major mission for the plant. It also prompted a lay-up of the Fuel Processing Restoration project and the development and implementation of a comprehensive facility transition plan.

The Office of Nuclear Material and Facility Stabilization is responsible for facility deactivation, spent fuel management, and ICPP base programs at the INEL. The deactivation program maintains an inventory of contaminated and uncontaminated surplus facilities. It also conducts deactivation projects in the surplus facilities to transition the facilities into a safe, stable, low surveillance and maintenance cost position.

The ICPP base program provides general facilities infrastructure support which includes long range planning, facility services, and general purpose capital equipment to support deactivation, special nuclear material and spent nuclear fuel activities at the ICPP facility.

The Spent Nuclear Fuel (SNF) program receives and stores Naval spent nuclear fuel and other DOE assigned spent nuclear fuel. Current focus of the program is on preparing the spent nuclear fuel for permanent disposition in a geologic repository by characterizing, treating (if necessary), and then placing the fuel into a road-ready dry storage system. The INEL is also the lead laboratory coordinating the DOE complex-wide National SNF program.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Idaho (Continued)

In performing the above functions for the Office of Nuclear Material and Facility Stabilization, the Idaho Operations Office manages those activities at the Idaho site that help to achieve key programmatic goals. The Office of Nuclear Material and Facility Stabilization's goals are to: 1) reduce risks, 2) lower the mortgage cost of doing business, and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

Several examples of reducing risks are as follows:

- Completion of the ROVER project will occur in FY 1999. During FY 1997 and FY 1998 significant amounts of uranium-bearing material will be removed from the facility. By doing so, this project will have removed a criticality concern at the Idaho Chemical Processing Plant (ICPP).
- Spent nuclear fuel (SNF) management will ensure continued safe receipt and storage of various types of spent nuclear fuel at Idaho. The intent is to move exclusively to dry storage of SNF at Idaho. Progress will be made toward this goal in FY 1998.
- Electrical systems upgrades are being performed that will enhance ICPP's safety posture. The upgrades are intended to ensure that electrical distribution systems will meet current electrical safety codes.

An example of lowering mortgage costs is as follows:

- In FY 1998 the Waste Calcining Facility closure will be complete with a Resource Conservation and Recovery Act (RCRA) compliant cap being in place over the remaining demolished structure. This project has significantly reduced the mortgage associated with this facility.

Idaho will also support the nuclear nonproliferation policy by receiving Foreign Research Reactor Fuel for disposition and storage.

The Idaho Operations Office also focuses on activities related to the management of general purpose infrastructure (i.e., "balance of site") and site-wide support services that are essential for owning, operating, and accomplishing essential missions at DOE Environmental Management sites. Specific examples of infrastructure and support systems include: grounds, roads, general purpose buildings, utilities, communications, computers and information, fleet management, maintenance and fabrication, emergency services, land management, analytical laboratories, and environmental test facilities.



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Idaho (Continued)

The goal of the landlord program is to ensure that the general purpose infrastructure and site services are always ready to safely, reliably, and efficiently support environmental management activities in a cost-effective manner.

The end-state goal is the implementation of the minimum set of landlord support functions. Surplus facilities or equipment will be either recycled for interim or indefinite alternative uses by DOE, transferred for reuse by another government agency, excessed to the General Services Administration (GSA), transferred to the Office of Environmental Restoration for remediation, or demolished. Once established, the end-state will minimize DOE overhead costs and, in some cases, avoid unnecessary capital costs.

The Idaho Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. This office also supports transportation emergency management planning, training (both localized and distance learning), preparedness, and regional emergency management planning, training, and technical assistance coordination.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. The Idaho Operations Office will provide statistical tools to improve site and waste characterization planning and provide technical support in field implementation of national guidance on laboratory contracting.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Idaho

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	\$71,341	\$84,543	\$70,356	\$-14,187	-17%
Stabilization .....	0	55,483	46,913	-8,570	-15%
Deactivation .....	9,994	8,773	8,270	-503	-6%
Program Direction .....	4,347	0	0	0	0%
Site-Wide Landlord .....	39,033	33,183	24,024	-9,159	-28%
Transportation Management .....	0	0	150	+150	>999%
Emergency Management .....	0	1,100	850	-250	-23%
Characterization Management .....	0	777	700	-77	-10%
Pollution Prevention .....	0	760	1,300	+540	+71%
<b>TOTAL, Idaho .....</b>	<b>\$124,715</b>	<b>\$184,619</b>	<b>\$152,563</b>	<b>\$-32,056</b>	<b>-17%</b>

### III. Performance Summary - Accomplishments:

#### Surveillance and Maintenance

- In FY 1996, provided steam for 130 buildings, distributed 147,000 kilowatt hours per day of electricity, provided 2.5 million gallons of water per day, performed maintenance on 80 pieces of major equipment and 350 instrumentation systems, provided facilities maintenance (8,000 orders per year), work control, and general services such as: custodial, training, roads and grounds upkeep, warehousing, and personnel protection equipment issue room to 1,300 people and 130 buildings at the Idaho Chemical Processing Plant (ICPP). In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996 excluding the following scope of work: work control, training, warehousing, and personnel protection equipment issue room. This workscope shifted from operations activities to consolidate administration functions under one funding control package. Also, incorporates process efficiencies identified through the ICPP Effectiveness Improvement Initiative.

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
27,018	26,743	20,706

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### **Surveillance and Maintenance** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>In FY 1996, provided engineering and administrative support to ICPP such as processing over 4,000 drawings, completing 4 steam safety and 10 fire system analyses, maintaining 16,700 controlled distribution copies, and completing 6 facility models. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996, in addition to work control, training, warehousing, and personnel protection equipment issue room. This workscope shifted from operations activities to consolidate administration functions under one funding control package.</li> </ul>	10,451	10,858	12,594
<ul style="list-style-type: none"> <li>In FY 1996, provided environmental, safety, health and quality assurance programs for the general plant facilities at ICPP such as radiological control, industrial safety, fire protection, industrial hygiene and High Efficiency Particulate Air (HEPA) filter/ventilation, environmental permitting compliance, and Idaho National Engineering Laboratory (INEL) Chemical Management System. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996. The implementation of this scope of work will incorporate the process efficiencies which were identified through the ICPP Effectiveness Improvement Initiative thereby allowing the same scope of work to be performed at a reduced cost.</li> </ul>	9,387	9,734	8,000
<ul style="list-style-type: none"> <li>In FY 1996, completed 110 surveillance, preventive, and corrective maintenance activities daily to ensure the safe storage of special nuclear material and spent nuclear fuel at the Unirradiated Fuel Storage Facility. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996.</li> </ul>	968	852	521

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Surveillance and Maintenance</u></b> (Continued)			
<ul style="list-style-type: none"> <li>In FY 1996, completed General Plant Project construction items to maintain a safe and cost-efficient infrastructure, such as: CPP-602 Analytical Laboratory Upgrade, ICPP Sewer Line Extension, the CPP-633 Paint Shop. In FY 1997, complete General Plant Project construction items to maintain a safe and cost-efficient infrastructure, such as: Boiler Feed Water Piping, Consolidation of ICPP Utility Controls and ICPP Main Steam Line Safety Modifications. In FY 1998, will complete General Plant Project construction projects to maintain a safe and cost-efficient infrastructure, such as: ICPP Cathodic Protection Upgrade, CPP-606 Demineralized Water Distribution and the CPP-606 Compressed Air System Filter Bypass. The increase in FY 1998 funding is necessary to support the mission needs of the spent nuclear fuel program.</li> </ul>	4,655	3,840	11,088
<ul style="list-style-type: none"> <li>In FY 1996, initiated design for the ICPP Electrical and Utility Systems Upgrade project and initiated construction of the Security Facilities Consolidation project. In FY 1997, initiate construction of the ICPP Electrical and Utility Systems Upgrade project and continue construction of the Security Facilities Consolidation project. In FY 1998, will continue those activities described for FY 1997, excluding construction funding which is requested in the new National Defense Asset Acquisition appropriation.</li> </ul>	14,697	16,685	2,968
<ul style="list-style-type: none"> <li>In FY 1996, provided ongoing surveillance and maintenance for industrial safety, structural and equipment preventive and corrective maintenance, procedure and quality support self-assessments, nuclear criticality, and contamination control within the deactivating facilities. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996.</li> </ul>	4,165	5,731	4,203
<ul style="list-style-type: none"> <li>In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, perform surveillance and maintenance of CPP-666, CPP-603, CPP-749, Fort Saint Vrain, and Test Area North Spent Nuclear Fuel storage facilities to ensure safe storage of spent nuclear fuel. In FY 1998, will continue those activities described for FY 1997.</li> </ul>	0	10,100	10,276
TOTAL, Surveillance and Maintenance	<u>\$71,341</u>	<u>\$84,543</u>	<u>\$70,356</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Stabilization</u></b>			
<ul style="list-style-type: none"> <li>In FY 1997, provide management, administrative, and planning activities for the Plutonium Focus Area to address plutonium stabilization and storage issues and coordinate department-wide research and development programs in the areas of plutonium storage standards, stabilization processes, packaging, surveillance and monitoring, and core technologies. In FY 1998, partially fund the continuing activities of the Plutonium Focus Area in fulfilling their responsibilities to provide peer review of Plutonium R&amp;D priorities, draft and publish the annual update of the 94-1 Research and Development Plan plus provide systems engineering expertise as mandated to successfully integrate plutonium stabilization activities across the complex.</li> </ul>	0	3,910	500
<ul style="list-style-type: none"> <li>In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, receive spent nuclear fuel from the Navy, the Advanced Test Reactor, and foreign research reactors; correct spent nuclear fuel facility vulnerabilities, transfer spent nuclear fuel from older facilities to modern facilities, perform operator training and other spent nuclear fuel facility support activities, continue spent fuel facility rack replacement, take aluminum storage baskets out of service and replace with stainless steel baskets, and upgrade water treatment systems. In FY 1998, will continue those activities described for FY 1997.</li> </ul>	0	26,739	24,708
<ul style="list-style-type: none"> <li>In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, develop and implement policies, strategies, and programs to safely, effectively, and efficiently manage current and future inventories of DOE-owned spent nuclear fuel and foreign research reactor spent nuclear fuel; identify and integrate requirements to assure safe existing storage; prepare for ultimate disposition in a geologic repository; and support the INEL as the Department's lead laboratory for spent nuclear fuel. In FY 1998, will continue those activities described for FY 1997 at a lower level of support due to completion of a portion of the repository performance studies dealing with DOE spent fuel.</li> </ul>	0	21,507	12,669

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### Stabilization (Continued)

- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, continue conceptual and advanced conceptual designs for the dry cask transfer station and the dual purpose dry canister storage facility in order to support facility operation by July 1, 2003. In FY 1998, funding supports site characterization studies, Nuclear Regulatory Commission (NRC) pre-licensing development, parametric cost comparison studies, and conceptual studies necessary to construct a dry transfer capability and procure a dry storage system for spent nuclear fuel at ICPP. Funding (\$107,700,000) is being requested in the privatization portion of the DOE budget for this capability, but a final decision on performing the project using an internal M&O approach versus a privatization approach has not been made. When this decision is finalized, either a line-item new start project will be requested, or the privatization request for proposal will be prepared and a contract for the capability awarded.
- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, support the research and development efforts for dual purpose canisters and support a project to place a dual purpose canister spent nuclear fuel storage facility into operation by July 1, 2003. In FY 1998, will continue those activities described for FY 1997. In addition, will place into operation non-destructive examination equipment required to examine canisters under water without opening the canisters.

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
	0	1,790	5,569
	0	1,537	3,467
TOTAL, Stabilization	<u>\$0</u>	<u>\$55,483</u>	<u>\$46,913</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### Deactivation

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>In FY 1996, initiated removal of contaminated equipment as part of the deactivation of the ROVER Facility. Also, completed design of system to ship uranium bearing materials to dry storage to achieve non-criticality control and status. In FY 1997, complete 40 percent of the ROVER deactivation to accomplish nuclear material stabilization commitments at Idaho and remove the nuclear criticality hazard. This workscope also includes removal of vessels, equipment, and special nuclear material from the Material Handling Cave. In FY 1998, will continue removal of the remaining contaminated equipment and will transfer uranium-bearing materials from ROVER to the CPP-603 facility for dry storage. Completion of ROVER deactivation activities is expected in FY 1999. Funding decreased as a result of completing significant major activities within the project.</li> </ul>	8,072	6,323	3,802
<ul style="list-style-type: none"> <li>In FY 1996, completed design, environmental assessment, closure plan, and risk assessment for the Waste Calcining Facility (WCF). In FY 1997, initiate WCF deactivation/closure. In FY 1998, will complete the immobilization of all WCF cell spaces, grouting, and construction of a Resource Conservation and Recovery Act (RCRA) compliant cap over the remaining demolished structure.</li> </ul>	1,822	2,300	2,468
<ul style="list-style-type: none"> <li>In FY 1996, completed deactivation assessment needs for the Underwater Fuel Receiving and Storage Building (CPP-603) and the Fuel Process Building/Headend Process Plan (CPP-601/640). In FY 1997, initiate deactivation planning for CPP-603 and CPP-601/640 under a 7-year deactivation schedule. In FY 1998, will complete two deactivation plans and two project designs for CPP-601/640 and CPP-603.</li> </ul>	100	150	2,000
TOTAL, Deactivation	<u>\$9,994</u>	<u>\$8,773</u>	<u>\$8,270</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### **Program Direction**

- In FY 1996, provided salaries, benefits, travel, and training to Federal employees for oversight and management of the contractor workforce responsible for performing Nuclear Material and Facility Stabilization activities for the Department of Energy at the Idaho Operations Office. Beginning in FY 1997, these activities are budgeted in the Program Direction account.

TOTAL, Program Direction

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
4,347	0	0
<u>\$4,347</u>	<u>\$0</u>	<u>\$0</u>

#### **Site-Wide Landlord**

- Provide ongoing site-wide landlord services, such as meteorological and seismic monitoring, integrated facility planning, regulatory policy and guidance, and emergency preparedness, for nine major facilities on 560,000 acres.
- Acquire capital equipment such as: industrial hygiene and radiation monitoring equipment, security equipment, industrial equipment, vehicles and heavy equipment, laboratory and electronic equipment, and power and computer equipment, that is required to maintain safe and efficient operations for 14 site-wide service programs at INEL.
- In FY 1996, initiated Title Design and Phase I construction for the Electrical Distribution Upgrade (96-D-461) construction project to provide reliability and maintainability of the electrical distribution system at INEL. In FY 1997, INEL will initiate Phase 2 Design and complete Phase 1 construction. In FY 1998, construction funding for this project is requested in the new National Defense Asset Acquisition appropriation. In FY 1998, no activity.
- Complete ongoing general plant projects, construction items, and develop title designs and initiate construction activities for projects such as roof replacements, motor generator and diesel generator replacements, heating, ventilation and air conditioning (HVAC) upgrade, and emergency notification, to maintain a safe and cost efficient infrastructure.

13,576	10,988	9,255
8,880	8,436	7,798
1,075	6,862	0
852	4,807	6,023



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Site-Wide Landlord</u></b> (Continued)			
<ul style="list-style-type: none"> <li>Provide project planning/development activities for future line item construction projects to reduce or eliminate environmental, health, and safety concerns, and support and maintain the physical infrastructure at INEL.</li> </ul>	6	330	948
<ul style="list-style-type: none"> <li>In FY 1996, continued construction activities for the Fire and Life Safety (92-D-181) construction project to correct fire protection and life safety code deficiencies at Test Area North (TAN) and continued construction activities at Test Reactor Area (TRA). In FY 1997, construction activities at TRA will be completed. In FY 1998, no activity.</li> </ul>	7,045	0	0
<ul style="list-style-type: none"> <li>The Facility Disposal Initiative (FDI) will provide for the disposal of identified nonessential facilities at INEL. In FY 1997, characterization, planning, design, and cost estimating activities will be completed for 2 buildings and structures. In addition, approximately 2 characterized buildings and ancillary structures will be disposed of in FY 1997. In FY 1998, no activity.</li> </ul>	0	750	0
<ul style="list-style-type: none"> <li>In FY 1996, continued construction activities for the Electrical Upgrade (93-D-172) construction project to upgrade key portions of the high voltage power system which supply electrical power to the entire INEL. In FY 1997, construction activities will be completed. In FY 1998, no activity.</li> </ul>	450	0	0
<ul style="list-style-type: none"> <li>In FY 1996, completed Title Design activities and initiated construction for the Central Facilities (CFA) Fire Station and Fire Training Facility (94-D-401) as part of the Emergency Response construction project. This project is being conducted to upgrade fire protection and fire personnel training in accordance with DOE Orders and National Fire Protection Agency Codes. In FY 1997, construction of the CFA Fire Station and Fire Training Facility will be completed. In FY 1998, no activity.</li> </ul>	5,209	747	0
<ul style="list-style-type: none"> <li>In FY 1996, completed Title II Design and initiated construction of the CFA Medical Facility (94-D-415) to provide a new medical clinic for INEL personnel. In FY 1997 construction of the CFA Medical Facility will be completed. In FY 1998, no activity.</li> </ul>	1,940	263	0
TOTAL, Site-Wide Landlord	<u>\$39,033</u>	<u>\$33,183</u>	<u>\$24,024</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### **Transportation Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, no activity. In FY 1998, coordinate with the Commercial Vehicle Safety Alliance (CVSA) and the Conference of Radiation Control Protection Direction (CRCPD) on transportation issues and complete pilot study of safety inspection procedures with the Commercial Vehicle Safety Alliance.

TOTAL, Transportation Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	0	150
<u>\$0</u>	<u>\$0</u>	<u>\$150</u>

#### **Emergency Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program and on the development of a national TEPP training program for DOE's radioactive materials shipments. In FY 1998, activities will include the completion of the TEPP program and focus attention on a technical assistance program for State, Tribal, and local governments and will begin full implementation of the national training program.

TOTAL, Emergency Management

0	1,100	850
<u>\$0</u>	<u>\$1,100</u>	<u>850</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

#### **Characterization Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, will complete decision theory statistical description document for distribution (DOE/EM-0316) and will provide technical support to decision theory pilot programs. Information systems will collect, compile, and report on EM analytical services. Systems developed include the National Sample Tracking System (NSTS), the Director of EM Sampling and Analysis Resources (DEMSAR), and the EM Analytical Services Server (EMASS). In FY 1998, continuation of technical support to demonstration projects and expand decision theory application to characterization of "hot-spot" contaminant source terms. (Assumes extension of current cooperative agreement with Montana State University (MSU). Focus will continue upon the operation and maintenance of the NSTS, DEMSAR, and EMASS.

TOTAL, Characterization Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	777	700
<u>\$0</u>	<u>\$777</u>	<u>\$700</u>

#### **Pollution Prevention**

- In FY 1996, funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs at its sites including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; 5) to implement waste reduction projects. In FY 1998, waste reduction efforts will continue for both low-level radioactive waste and sanitary waste from routine operations at the Idaho National Engineering Laboratory in support of the Secretarial goals for the Department. The specific efforts are: glovebox and drum refurbishment at the Radioactive Waste Management Complex (RWMC) to meet the Governor's agreement, waste reduction opportunities at CPP 602 for

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Idaho

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Pollution Prevention</u></b> (Continued)			
the demineralizer process, implement site-wide use of launderable Personal Protective Equipment (PPE); and further identification/analysis of waste reduction opportunities that have less than a three-year payback potential.	0	760	1,300
TOTAL, Pollution Prevention	<u>\$0</u>	<u>\$760</u>	<u>\$1,300</u>
TOTAL, IDAHO	\$124,715	\$184,619	\$152,563

#### Significant Funding Changes From FY 1997 to FY 1998:

- Decrease in surveillance and maintenance funding is due to the FY 1998 construction funding for 2 projects being requested in the National Defense Asset Acquisition appropriation (\$-13,717,000); decrease as a result of implementing process efficiencies which were identified through the ICPP Effectiveness Improvement Initiative (\$-7,718,000); and Spent Nuclear Fuel program funding is increased to support mission needs (\$+7,248,000). -14,187
- Decrease in stabilization funding reflects partial funding of the Plutonium Focus Area program (\$-3,410,000); completion of spent fuel rack replacement and replacement of aluminum storage baskets with stainless steel baskets (\$-2,031,000); and reduced requirements in the National Spent Fuel Program due to completion of a portion of the repository performance studies (\$-8,838,000). Also, reflects an increase to support SNF project startup activities, such as characterization studies, NRC pre-licensing development, and conceptual design (\$+3,779,000) and begin operation of non-destructive examination equipment (\$+1,930,000). -8,570
- Decrease in the deactivation program is a result of the shift in resources from the ROVER Facility deactivation (\$-2,521,000) to the start/completion of design activities for the deactivation of the Underwater Fuel Storage Facility and ICPP 601/640 Facility (\$+1,850,000). Complete construction of a RCRA compliant cap over the remaining demolished Waste Calcining Facility (\$+168,000). -503

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Idaho (Continued)

- Decrease in Site-Wide Landlord line item construction funding is due to completion of line item project activities in FY 1997 and the transfer of FY 1998 projects to the National Defense Asset Acquisition appropriation.
  - Emergency Response--Completion of CFA Fire Station and Fire Training Facility (94-D-401) (ID) (\$-747,000)
  - Medical Facilities--Completion of CFA Medical Facility (94-D-415) (ID) (\$-263,000)
  - Electrical Distribution Upgrade, completion of Phase I construction and transfer of FY 1998 activities (96-D-461) (ID) (\$-6,862,000)-7,872
- Overall decrease in Site-Wide Landlord activities, other than line item construction activities, is due to a reduction in Base Program activities (\$-1,733,000), a deferral of Facility Disposal Initiative (FDI) activities (\$-750,000), a reduction in the procurement of capital equipment (\$-638,000) based on an approved Priority List, an increase in the funding of general plant projects to support critical infrastructure needs (\$+1,216,000), and an increase in planning and development activities for future line-item construction projects (\$+618,000).-1,287
- Increase in Transportation Management funding is due to arising transportation issues.+150
- Decrease in Emergency Management funding is due to the completion of the Transportation Emergency Preparedness Program.-250
- Decrease in Characterization Management funding is due to limited technical support to demonstration projects.-77
- Increase in Pollution Prevention funding will allow the Idaho National Engineering Laboratory (INEL) to implement specific pollution prevention opportunities to reduce future waste generation. The specific opportunities are: glovebox and drum refurbishment at the Radioactive Waste Management Complex (RWMC) to meet the Governor's agreement, waste reduction opportunities at CPP 602 for the demineralizer process, implement site-wide use of launderable Personal Protective Equipment (PPE); and further identification/analysis of waste reduction opportunities that have less than a three-year payback potential.+540

NUCLEAR MATERIAL AND FACILITY STABILIZATION  
(Dollars in Thousands)

NEVADA

I. Mission Supporting Goals and Objectives

The Office of Site Operations, through the Nevada Operations Office, performs crosscutting activities that benefit the whole complex for three major national programs: Emergency Management, Characterization Management and Pollution Prevention.

The Nevada Operations Office provides transportation emergency management radioactive material training response to transportation accidents. This office also supports local and state response training, and regional emergency management planning, training, and technical assistance coordination.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. The Nevada Operations Office will assist in the planning and execution of shorter and less costly studies and develop the national model for projecting analytical needs and laboratory capacities.

The Nevada Operations Office conducts a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention Programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

II. Funding Schedule:

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Emergency Management .....	\$0	\$320	\$300	\$-20	-6%
Characterization Management .....	0	0	2,039	+2,039	>999%
Pollution Prevention. ....	0	500	200	-300	-60%
 TOTAL, Nevada .....	 \$0	 \$820	 \$2,539	 \$+1,719	 +210%

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Nevada

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Emergency Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, continue to operate the Transportation Emergency Training for Response and Assistance (TETRA) program for DOE, State, Tribal and local emergency officials. In FY 1998, continue operations of the TETRA program.</li> </ul>	0	320	300
TOTAL, Emergency Management	<u>\$0</u>	<u>\$320</u>	<u>\$300</u>
<b><u>Characterization Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, no activity. In FY 1998, maintain and expand use of characterization streamlining techniques with particular emphasis on large ticket activities, such as integrated site-wide groundwater monitoring and waste management and disposal facility site assessment, and to integrate these tools further with other Federal/regulatory agencies.</li> </ul>	0	0	2,039
TOTAL, Characterization Management	<u>\$0</u>	<u>\$0</u>	<u>\$2,039</u>
<b><u>Pollution Prevention</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Waste Management program. In FY 1997 and FY 1998, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; and 4) to develop incentives to reduce waste generation.</li> </ul>	0	500	200
TOTAL, Pollution Prevention	<u>\$0</u>	<u>\$500</u>	<u>\$200</u>
TOTAL, NEVADA	\$0	\$820	\$2,539

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Nevada

- Decrease in Emergency Management funding is due to reduced operation for the existing training program. -20
- Characterization Management funding is increased to develop a national model for projecting analytical needs and lab capacity. +2,039
- Decrease in the Pollution Prevention funding reflects lack of manpower to implement an aggressive program. -300



NUCLEAR MATERIAL AND FACILITY STABILIZATION  
(Dollars in Thousands)

OAKLAND

I. Mission Supporting Goals and Objectives

The Oakland Operations Office manages operations at the Lawrence Livermore National Laboratory (LLNL).

The LLNL main site is an approximately one-square-mile facility located in the Livermore-Amador Valley, approximately 40 miles east of San Francisco, on the eastern border of the city of Livermore. This site has an interim status Resource Conservation and Recovery Act (RCRA) Part B Permit for a treatment, storage, and disposal facility for hazardous, mixed, and low-level waste. Past operations involving the handling of storage of hazardous materials at the main site have resulted in the release and subsequent migration of contaminants into soil and groundwater. The Office of Nuclear Material and Facility Stabilization's mission is to maintain six sodium facilities in a safe and sound condition while reducing their annual surveillance and maintenance costs and to support complex-wide plutonium stabilization.

Oakland Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

II. Funding Schedule:

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Stabilization .....	\$0	\$320	\$0	\$-320	-100%
Deactivation .....	10,800	200	0	-200	-100%
Program Direction .....	346	0	0	0	0%
Program Support .....	482	0	0	0	0%
Emergency Management .....	0	150	0	-150	-100%
Pollution Prevention .....	0	1,815	998	-817	-45%
 TOTAL, Oakland .....	 \$11,628	 \$2,485	 \$998	 \$-1,487	 -60%

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oakland

#### Stabilization

- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, continue support of the Storage and Disposal Assessment Teams and the Nuclear Regulatory Commission licensing efforts associated with spent nuclear fuel activities. These activities are performed in support of the National Spent Nuclear Fuel Program. In FY 1998, funds are requested at Idaho to support the National Spent Nuclear Fuel program. These funds will be distributed as needed to support the National program.

TOTAL, Stabilization

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	320	0
<hr/> \$0	<hr/> \$320	<hr/> \$0

#### Deactivation

- In FY 1996, initiated procurement of the plutonium stabilization and packaging system which will be used complex-wide. In FY 1997, support repacking, testing, and design of new cans for plutonium storage. In FY 1998, no activity.

TOTAL, Deactivation

10,800	200	0
<hr/> \$10,800	<hr/> \$200	<hr/> \$0

#### Program Direction

- In FY 1996, provided salaries, benefits, travel, and training to Federal employees for oversight and management of the contractor workforce responsible for performing Nuclear Material and Facility Stabilization activities for the Department of Energy at the Oakland Operations Office. Beginning in FY 1997, these activities are budgeted in the Program Direction account.

TOTAL, Program Direction

346	0	0
<hr/> \$346	<hr/> \$0	<hr/> \$0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oakland

#### **Program Support**

- In FY 1996, evaluated the ventilation system at Hanford's Waste Encapsulation and Storage Facility, supported complex-wide deactivation initiatives, and supported analyses of stabilization planning and budget requirements. In FY 1997, no activity. In FY 1998, no activity.

TOTAL, Program Support

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
482	0	0
<hr/> \$482	<hr/> \$0	<hr/> \$0

#### **Emergency Management**

- In FY 1996 funds were appropriated in the Compliance and Program Coordination program. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including emergency exercise program associated with the foreign spent nuclear fuel shipments. The spent nuclear fuel shipments are to be completed in FY 1997. In FY 1998, no activity.

TOTAL, Emergency Management

0	150	0
<hr/> \$0	<hr/> \$150	<hr/> \$0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oakland

#### Pollution Prevention

- In FY 1996 funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects. Also provide funds for technical support to Headquarters and complete the Bevelac Project, which reused contaminated concrete reactor shielding blocks. In FY 1998, the Lawrence Livermore National Laboratory will continue its program to reduce the generation of low-level radioactive waste, hazardous waste, and sanitary waste from laboratory operations.

TOTAL, Pollution Prevention

TOTAL, OAKLAND

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	1,815	998
<u>\$0</u>	<u>\$1,815</u>	<u>\$998</u>
\$11,628	\$2,485	\$998

#### Significant Funding Changes From FY 1997 to FY 1998:

- Decrease in the Stabilization category is due to the National Spent Nuclear Fuel program funding being requested at Idaho. -320
- Decrease in Deactivation activities is due to the completion of the development of new cans for plutonium storage. -200
- Decrease in Emergency Management funding is due to spent nuclear fuel shipments being completed. -150
- Decrease in Pollution Prevention funding is due to completion of the Bevelac project in FY 1997. -817

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

OAK RIDGE

I. Mission Supporting Goals and Objectives

The Oak Ridge Operations Office manages the Oak Ridge National Laboratory (ORNL), the surplus enrichment plants at Oak Ridge, Tennessee, and the surplus high assay enrichment plant at Portsmouth, Ohio. The Oak Ridge Reservation is located 20 miles west of Knoxville, in eastern Tennessee.

The ORNL occupies several sites and covers approximately 2,900 acres in Melton and Bethel Valleys, 10 miles southwest of the city of Oak Ridge, Tennessee. The ORNL's mission is to conduct applied research and development (R&D) in support of DOE programs in fusion, fission, conservation, fossil, and other energy technologies and to perform basic research in selected areas of the physical and life sciences. The Office of Nuclear Material and Facility Stabilization's mission is to maintain more than 50 buildings in a safe and sound condition while reducing their annual surveillance and maintenance costs.

The mission of the Oak Ridge Spent Nuclear Fuel (SNF) program is to implement policies, strategies, and programs to safely, effectively, and efficiently manage the current inventory of spent nuclear fuel located at the Oak Ridge Reservation.

The Office of Nuclear Material and Facility Stabilization is responsible for planning and maintaining the isotope facilities in a safe, environmentally and economically sound condition until ready for decontamination and decommissioning. Many of the facilities are contaminated and require continuous monitoring to assure public protection from unplanned radiation releases.

Oak Ridge Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. This office also supports maintenance and operations of national infrastructure systems such as recognized national rerouting

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Oak Ridge (Continued)

systems, and TRANSCOM, a satellite tracking system supporting all field transportation and packaging activities, and regional emergency management planning, training, and technical assistance coordination.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. Oak Ridge will develop standards for cost-effective contracting with private laboratories and assist in the development of a system to evaluate field sample management program performance.

### II. Funding Schedule

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Stabilization .....	\$80	\$1,880	\$1,800	\$-80	-4%
Deactivation .....	686	341	221	-120	-35%
Program Support .....	70	0	0	0	0%
Transportation Management .....	0	1,786	2,125	+339	+19%
Emergency Management .....	0	135	150	+15	+11%
Characterization Management .....	0	543	400	-143	-26%
Pollution Prevention .....	0	5,036	4,500	-536	-11%
 TOTAL, Oak Ridge .....	 \$836	 \$9,721	 \$9,196	 \$-525	 -5%

### III. Performance Summary - Accomplishments:

FY 1996                      FY 1997                      FY 1998

#### Stabilization

- In FY 1996 funds were appropriated in the Office of Waste Management. In FY 1997, resolve program vulnerabilities associated with the Solid Waste Storage Area (SWSA) 5N storage facilities; (e.g., completion of modifications to existing storage facilities); consolidate SNF into adequate interim storage facilities and provide support to develop Environmental Assessments (EA) and Environmental Impact Statements (EIS) for SNF program activities; continue to support and interface with the National SNF

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oak Ridge

#### Stabilization (Continued)

program; provide systems engineering support activities and provide program management to coordinate SNF activities. In FY 1998, will continue to resolve program vulnerabilities will perform repackaging activities for the stainless steel, zirconium, and graphite-clad SNF; will continue to support and interface with the National SNF program.

- In FY 1996, evaluated environmental and cost impacts of shutting down the Savannah River Site reactor cooling water system. In FY 1997, no activity. In FY 1998, no activity.

TOTAL, Stabilization

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	1,880	1,800
80	0	0
<u>\$80</u>	<u>\$1,880</u>	<u>\$1,800</u>

#### Deactivation

- In FY 1996, initiated development of deactivation plans, schedules, and cost data for more than 50 surplus contaminated facilities. In FY 1997, continue those activities described for FY 1996. Since initial deactivation plans and schedules were completed in FY 1996, continuation and improvements of these plans and schedules in FY 1997 and FY 1998 can be completed at a lower cost. In FY 1998, continue those activities described for FY 1996.

TOTAL, Deactivation

686	341	221
<u>\$686</u>	<u>\$341</u>	<u>\$221</u>

#### Program Support

- In FY 1996, provided environmental, safety, and health management planning support to the Mound and Pinellas Plants. In FY 1997, no activity. In FY 1998, no activity.

TOTAL, Program Support

70	0	0
<u>\$70</u>	<u>\$0</u>	<u>\$0</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oak Ridge

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Transportation Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996 funds were appropriated in the Compliance and Program Coordination program. In FY 1997, continue to operate and maintain the Department's automated transportation systems in support of the activities throughout the DOE complex. These systems include the DOE tracking system, the historical shipment data base, and the hazardous materials routing system. In FY 1998, continue operation of the automated systems and provide technical support to field and program offices in preparing for and executing hazardous materials shipping campaigns.</li> </ul>	0	1,786	2,125
TOTAL, Transportation Management	<u>\$0</u>	<u>\$1,786</u>	<u>\$2,125</u>
<b><u>Emergency Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996 funds were appropriated in the Compliance and Program Coordination program. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program. In FY 1998, activities will include the completion of the TEPP program and focus attention on a technical assistance program for State, tribal and local governments.</li> </ul>	0	135	150
TOTAL, Emergency Management	<u>\$0</u>	<u>\$135</u>	<u>\$150</u>
<b><u>Characterization Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, two "Characterization and Monitoring Technology Verification" demonstrations will be conducted under the joint sponsorship of DOE and the Environmental Protection Agency (EPA) as defined in Interagency Agreement DOE No. 1824-J093-C1. In FY 1998, interagency projects will continue to investigate loss mechanisms for volatiles in environmental samples and to support demonstration</li> </ul>			



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Oak Ridge

#### **Characterization Management** (Continued)

and regulatory acceptance studies for environmental characterization and monitoring activities. Additional organizations, e.g., Department of Defense, will be integrated into collaborative efforts.

TOTAL, Characterization Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	543	400
<u>\$0</u>	<u>\$543</u>	<u>\$400</u>

#### **Pollution Prevention**

- In FY 1996 funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs at its sites including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects. In FY 1998, Environmental Restoration activities at Oak Ridge sites will include pollution prevention concepts and techniques where possible. In addition, efforts to reduce low-level radioactive waste generation, low-level mixed waste and sanitary waste from routine site operations will continue to be a priority.

TOTAL, Pollution Prevention

TOTAL, OAK RIDGE

0	5,036	4,500
<u>\$0</u>	<u>\$5,036</u>	<u>\$4,500</u>
\$836	\$9,721	\$9,196

#### Significant Funding Changes From FY 1997 to FY 1998:

- Decrease in Stabilization funding reflects a minimal reduction in the level of workscope being performed. -80
- Decrease in Deactivation funding is attributed to a lower cost for deactivation plans and schedules. -120
- Increase in Transportation Management funding is due to increased technical support in preparing for and execution of hazardous materials shipping campaigns. +339

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Oak Ridge (Continued)

- |   |      |
|---|------|
| • Increase in Emergency Management funding is due to an increased technical assistance program.   | +15  |
| • Decrease in Characterization Management funding reflects funding transferred to Nevada in FY 1998 to develop a national model for projecting analytical needs and lab capacity. | -143 |
| • Decrease in Pollution Prevention funding is due to shifted pollution prevention emphasis to make waste operators more accountable for their waste.                              | -536 |

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

OHIO

I. Mission Supporting Goals and Objectives

The Mound Plant is located on 306 acres in Miamisburg, Ohio about 10 miles south of Dayton. The site is managed by the Ohio Field Office. The plant was built in the late 1940's to support research and development, testing and production activities for the Department's defense nuclear weapons complex and energy research programs until 1994. At that time, these activities were transferred to Kansas City, Los Alamos and Savannah River; however, Mound will continue to process tritium units for Defense Programs (DP) through CY 1997.

Mound was primarily involved with components containing plutonium-238, polonium-210 and tritium and processed large quantities of various types of explosives. As a result of these operations, contamination of the buildings, soil and groundwater with radioactive and hazardous chemicals has occurred. Mound has been placed on the National Priority List (NPL), and a Federal Facility Agreement (FFA) to effect remediation of the site has been negotiated with the U.S. and Ohio's Environmental Protection Agencies (EPA). Mound's final mission is to transit from an active production plant to safe shutdown and cleanup of the buildings and soil and eventual disposition of the real property by the year 2005.

The Ohio Field Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

II. Funding Schedule: Ohio

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Mound Project Office .....	\$48,311	\$83,357	\$82,144	\$-1,213	-1%
Program Direction .....	3,605	0	0	0	0%
Pollution Prevention .....	0	270	500	+230	+85%
 TOTAL, Ohio .....	 \$51,916	 \$83,627	 \$82,644	 \$ -983	 -2%

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Ohio

#### **Mound Project Office**

- In FY 1996, provided for: Mound base landlord costs; site deactivation, decommissioning and decontamination (D&D) of buildings and soil; transition activities including removal of nuclear materials, equipment, records and personal property; operation of tritium recovery systems and bulk gas storage and shipment; treatment, storage and disposal of radioactive, hazardous and mixed wastes; groundwater remediation activities; and reimbursement to Ohio Environmental Protection Agency for regulatory oversight. In FY 1997, continued activities supported in FY 1996. Funding and programmatic responsibilities previously associated with the Waste Management and Environmental Restoration programs in FY 1996 were transferred to the Nuclear Material and Facility Stabilization program. In FY 1998, continue activities supported in FY 1997.

TOTAL, Mound Project Office

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
48,311	83,357	82,144
<u>\$48,311</u>	<u>\$83,357</u>	<u>\$82,144</u>

#### **Program Direction**

- In FY 1996, provided salaries, benefits, travel, and training for Federal employees for oversight and management of the contractor workforce responsible for performing Nuclear Material and Facility Stabilization activities for the Department of Energy at the Ohio Field Office. Beginning in FY 1997, these activities are budgeted in the Program Direction account.

TOTAL, Program Direction

3,605	0	0
<u>\$3,605</u>	<u>\$0</u>	<u>\$0</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Ohio

#### **Pollution Prevention**

- In FY 1996, funds were appropriated in the Waste Management program. In FY 1997 and FY 1998, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects.

TOTAL, Pollution Prevention

TOTAL, OHIO

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	270	500
<hr/> \$0	<hr/> \$270	<hr/> \$500
\$51,916	\$83,627	\$82,644

#### Significant Funding Changes From FY 1997 to FY 1998:

- Decrease in the Mound Project Office funding is due to productivity savings in overall landlord costs as a result of changing from an M&O contractor to a performance-based completion contractor. -1,213
- Increase in Pollution Prevention funding is attributed to an acceleration of program activities. +230

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

PITTSBURGH ENERGY TECHNOLOGY CENTER

I. Mission Supporting Goals and Objectives

The Office of Site Operations, through Pittsburgh Energy Technology Center, performs crosscutting activities that benefit the whole complex for four major national programs: Transportation Management, Emergency Management, Characterization Management and Pollution Prevention.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. The Pittsburgh Energy Technology Center is responsible for supporting the national program in the areas of guidance documents, training activities, and in stakeholder initiatives.

The Characterization Management program at the Pittsburgh Energy Technology Center is responsible for supporting all EM programs to ensure that credible, cost-effective sampling and analytical needs are met. It also provides the EM standard guidance on contracting for analytical services and standardizing specifications for automating data management and review processes to save substantial time, cost, and elimination of duplicate efforts.

The Pollution Prevention program at Pittsburgh Energy Technology Center is responsible for supporting Environmental Management (EM) in preparing the FY 1995 and FY 1996 Annual Waste Minimization and Pollution Prevention reports.

II. Funding Schedule

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Program Support .....	\$1,540	\$0	\$0	\$0	0%
Transportation Management .....	0	435	435	0	0%
Emergency Management .....	0	340	300	-40	-12%
Characterization Management .....	0	600	550	-50	-8%
Pollution Prevention .....	0	435	0	-435	-100%
 TOTAL, Pittsburgh .....	 \$1,540	 \$1,810	 \$1,285	 \$-525	 -29%

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Pittsburgh

#### **Program Support**

- Provide technical support to the Office of Nuclear Material and Facility Stabilization for preparation of the Rocky Flats Plutonium Residues Environmental Impact Statement utilizing Performance Base Award Fee type contracting methods. In FY 1997 and FY 1998, no activity.

TOTAL, Program Support

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<u>1,540</u>	<u>0</u>	<u>0</u>
\$1,540	\$0	\$0

#### **Transportation Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, activities will focus on continued development and implementation of policies and procedures to provide a greater assurance of regulatory compliance and efficiency; efforts on the completion of the DOE Orders governing transportation and packaging activities, and to promote a conducive environment for total quality management in all DOE transportation activities. In addition, efforts will continue with the Transportation Internal Coordination Working Group to improve stakeholder communications and to ensure appropriate level of stakeholder involvement in DOE shipping activities and providing information to DOE program and field offices on transportation and packaging issues to assist in shipping campaigns and interaction with local and regional stakeholders. In FY 1998, work will continue in establishing the DOE policies and procedures for transportation and packaging activities and the development of computerized training materials to assist the DOE sites in meeting Federally-mandated training requirements and work will continue with stakeholder involvement.

TOTAL, Transportation Management

<u>0</u>	<u>435</u>	<u>435</u>
\$0	\$435	\$435

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Pittsburgh

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Emergency Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, support will be provided for the planning, coordination and development of a DOE-wide Transportation Emergency Management Program, with a focus on radioactive materials, spent fuel, and hazardous materials. In FY 1998, efforts will continue to move the Department to a consistent, standard approach to transportation emergency preparedness in an effort to reduce overall costs and to assure acceptance of DOE radioactive material shipments.</li> </ul>	0	340	300
TOTAL, Emergency Management	<u>\$0</u>	<u>\$340</u>	<u>\$300</u>
<b><u>Characterization Management</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, funds were appropriated in the Compliance and Program Coordination budget. In FY 1997, the National Sample Management Program (NSMP) will coordinate sample management activities conducted by Field Sample Management Organization (FSMO). The NSMP is responsible for ensuring that DOE is meeting the commitments it made to the General Accounting Office (GAO) on the procurement and management of analytical services. FY 1998, the NSMP will continue to coordinate activities conducted by the FSMO and will develop performance measures to track their effectiveness in yielding cost savings to DOE.</li> </ul>	0	600	550
TOTAL, Characterization Management	<u>\$0</u>	<u>\$600</u>	<u>\$550</u>
<b><u>Pollution Prevention</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996, no activity. In FY 1997, support will be provided for preparing the FY 1995 and FY 1996 Annual Waste Minimization and Pollution Prevention reports. In FY 1998, no activity.</li> </ul>	0	435	0
TOTAL, Pollution Prevention	<u>\$0</u>	<u>\$435</u>	<u>\$0</u>
TOTAL, PETC	\$1,540	\$1,810	\$1,285



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Pittsburgh

- Decrease in Emergency Management is due to an effort to reduce overall costs of DOE radioactive material shipments. -40
- Decrease in Characterization Management is due to a reduction in activities conducted by the Field Sample Management Organization (FSMO). -50
- Decrease in Pollution Prevention funding is due to completion of the Waste Minimization and Pollution Prevention Reports. -435

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

RICHLAND

I. Mission Supporting Goals and Objectives

The Richland Operations Office (RL) manages the Hanford Site, which is located on approximately 560 square miles (1,450 square kilometers) in southeastern Washington. Facilities at the Hanford site were among the first facilities constructed by the Manhattan Project. Historically, the emphasis of its operations has been on plutonium production, reactor and processing operations, and research activities related to advanced reactors, energy technologies, and basic sciences. All production activities ceased in 1989, and today the emphasis is on safely cleaning up and managing the wastes generated from past weapon production.

The Office of Nuclear Material and Facility Stabilization performs the following functions:

- Manages the former defense production and nuclear energy facilities at the Hanford Site in a safe, secure, and environmentally sound manner.
- Stores, manages, stabilizes, and disposes of the inventory of nuclear materials associated with the former defense nuclear facilities.
- Deactivates surplus facilities to reduce costly surveillance and maintenance and prepares facilities for final decommissioning.
- Expeditiously removes spent nuclear fuel from the K-Basin and transitions all Hanford spent nuclear fuel to low-cost and safe interim storage.

In performing the above functions for the Office of Nuclear Material and Facility Stabilization, the Richland Operations Office manages those activities at the Hanford site that help to achieve key programmatic goals. The Office of Nuclear Material and Facility Stabilization's goals are to: 1) reduce risks, 2) lower the mortgage cost of doing business, and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

Several examples of reducing risks at Hanford are:

- With the cessation of production activities at the Plutonium Finishing Plant (PFP), the mission has been to stabilize and prepare nuclear materials for long-term storage and support cleanout activities needed to improve facility safety. Stabilization activities are being conducted in accordance with the Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 94-1. In FY 1998, the stabilization of 253 kg of plutonium in solutions will be completed and immobilization of 86 percent of the remaining bulk residues will be completed.
- The Spent Nuclear Fuel program will move, stabilize, and dry store 2,000 tons of spent nuclear fuel which is now slowly corroding in temporary wet storage 400 yards from the Columbia River.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Richland (Continued)

- In FY 1997, programmatic responsibility for Building 324, Waste Technology Engineering Laboratory, and Building 327, Post Irradiation Testing Laboratory, along with their material inventory and ancillary structures were transferred to the Office of Nuclear Material and Facility Stabilization from the Office of Waste Management. In FY 1998, these activities are budgeted in the Nuclear Material and Facility Stabilization program. The primary mission for Buildings 324 and 327 has been to conduct research and development activities. Throughout the years approximately 11.5 million curies of radioactive materials have been accumulating in these buildings. Due to the proximity of these buildings to the Columbia River and the city of Richland, efforts are underway to move large quantities of the inventory to locations farther away from the river and city. Efforts are also underway to develop deactivation plans and schedules for these buildings.

Several examples of lowering the mortgage at Hanford are:

- In December 1992, DOE ordered the permanent shutdown of the Plutonium-Uranium Extraction (PUREX) Plant. This was the beginning of a large-scale environmental cleanup effort to prepare the PUREX Plant for safe and efficient decontamination and decommissioning work. Beginning in FY 1998, PUREX will be in a low-cost surveillance and maintenance mode. Primary responsibility for the management of PUREX will be with the Environmental Restoration program. By accelerating deactivation activities at the PUREX facility in FY 1997, the deactivation work was completed 1 year ahead of schedule and the annual surveillance and maintenance costs at the facility were reduced from \$17,000,000 per year to less than \$2,000,000 per year. The facility is expected to be transferred to the Environmental Restoration program in the near future, well ahead of schedule, resulting in an overall savings of approximately \$60,000,000.
- At the end of FY 1995, the B Plant/Waste Encapsulation and Storage Facility (WESF) complex started the deactivation process. A permanent shutdown notice for the B Plant facility was issued in October 1995, and planning was initiated to decouple WESF, an operating facility, from B Plant. The B Plant is scheduled to be deactivated by the end of calendar year 1998. The WESF will become a model for the safe storage of radioactive material. By spending approximately \$15,000,000 in FY 1997 and \$12,300,000 in FY 1998 on B Plant deactivation activities, surveillance and maintenance at the plant will be reduced from approximately \$20,000,000 per year to less than approximately \$3,000,000 per year beginning in FY 1999. The B Plant will be transferred to the Environmental Restoration program at the end of CY 1998, 4 years ahead of schedule, resulting in a savings of approximately \$100,000,000 over the original FY 1995 plan.

The goal of the 300 Area Fuel Supply Transition is to shutdown 18 former N-Reactor fuel manufacturing and support buildings by FY 2000, while maintaining safety and compliance.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Richland (Continued)

The Richland Operations Office also focuses on activities related to the management of general purpose infrastructure (i.e., "balance of site") and site-wide support services that are essential for owning, operating, and accomplishing essential missions at DOE Environmental Management sites. Specific examples of infrastructure and support systems include: grounds, roads, general purpose buildings, utilities, communications, computers and information, fleet management, maintenance and fabrication, emergency services, land management, analytical laboratories, and environmental test facilities.

The goal of the landlord program is to ensure that the general purpose infrastructure and site services are always ready to safely, reliably, and efficiently support environmental management activities in a cost-effective manner.

The end-state goal is the implementation of the minimum set of landlord support functions. Surplus facilities or equipment will be either recycled for interim or indefinite alternative uses by DOE, transferred for reuse by another government agency, excessed to the General Services Administration (GSA), transferred to Environmental Restoration for remediation, or demolished. Once established, the end-state will minimize DOE overhead costs and, in some cases, avoid unnecessary capital costs.

Richland Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Transportation and Packaging national program assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders. The Richland Operations Office provides transportation training and explosives management. This office also provides operational support to corporate automated logistics systems as recommended by the Inspector General, the Secretary of Energy, and regional emergency management planning, training, and technical assistance coordination.

The Characterization Management Program (CMP) envelopes the activities related to the enhancement and effective management of DOE analytical resources to assure technical validity and cost-effectiveness of EM sampling and analysis programs. Richland will continue to assist Headquarters and the field in executing Data Quality Objectives/Streamlined Approach for Environmental Restoration planning on specific projects to ensure data quality for decision making.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Richland

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	\$64,845	\$112,544	\$122,690	\$+10,146	+9%
Stabilization .....	23,522	172,756	117,303	-55,453	-32%
Deactivation .....	27,339	27,869	18,656	-9,213	-33%
Program Direction .....	26,304	0	0	0	0%
Site-Wide Landlord .....	64,461	45,253	61,797	+16,544	+37%
Transportation Management .....	0	1,920	2,050	+130	+7%
Emergency Management .....	0	100	150	+50	+50%
Characterization Management .....	0	2,232	800	-1,432	-64%
Pollution Prevention .....	0	3,800	3,200	-600	-16%
<b>TOTAL, Richland .....</b>	<b>\$206,471</b>	<b>\$366,474</b>	<b>\$326,646</b>	<b>\$-39,828</b>	<b>-11%</b>

### III. Performance Summary - Accomplishments

#### Surveillance and Maintenance

- PUREX--In FY 1996, continued surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements (OSR). This workscope also included system/facility monitoring, corrective and preventive maintenance, safeguards and security, and International Atomic Energy Agency (IAEA) activities. In FY 1997, continue those activities described for FY 1996. In FY 1998, this scope of work is transferred to the Office of Environmental Restoration.

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
\$22,114	\$17,420	\$0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Surveillance and Maintenance** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>• <u>300 Area Fuel Supply</u>--In FY 1996, continued surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services as specified by Operational Safety Requirements (OSR). This workscope also included system/facility monitoring and corrective and preventive maintenance activities. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996.</li> </ul>	1,937	2,355	1,963
<ul style="list-style-type: none"> <li>• <u>Plutonium Finishing Plant (PFP)</u>--In FY 1996, continued surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements. This workscope also included system/facility monitoring, corrective and preventive maintenance, safeguards and security, and International Atomic Energy Agency (IAEA) activities. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996.</li> </ul>	40,794	46,200	45,115
<ul style="list-style-type: none"> <li>• <u>B Plant</u>--In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements (OSR). This workscope also includes system/facility monitoring and corrective and preventive maintenance activities. In FY 1998, will continue those activities described for FY 1997.</li> </ul>	0	7,775	5,883

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Surveillance and Maintenance** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>• <u>Waste Encapsulation and Storage Facility (WESF)</u>--In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, continue surveillance and maintenance of approximately 2,000 cesium and strontium capsules containing approximately 146 million curies of radioactivity. Other activities include the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements (OSR); preparation of a management plan for the final disposition of the cesium and strontium capsules; and system/facility monitoring and corrective and preventive maintenance activities. In FY 1998, will continue those activities described for FY 1997, except WESF will be a stand alone facility no longer receiving support from B Plant.</li> </ul>	0	11,865	16,328
<ul style="list-style-type: none"> <li>• <u>Spent Nuclear Fuel</u>--In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, continue surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements. This workscope also includes system/facility monitoring, corrective and preventive maintenance, and safeguards and security activities. In FY 1998, increase level of surveillance and maintenance activities required to operate the K-Basins to support the start of fuel removal activities. This workscope includes the basin water treatment/filtration system.</li> </ul>	0	26,929	38,353

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Surveillance and Maintenance** (Continued)

- Buildings 324 and 327--In FY 1996 and FY 1997 this activity was funded in the Office of Waste Management. However, programmatic responsibility resided with the Office of Nuclear Material and Facility Stabilization. In FY 1998, continue surveillance and maintenance activities including the surveillance of safety controls; maintenance of fire, safety and life support systems; building support and essential services to be performed as specified by Operational Safety Requirements. This workscope also includes system/facility monitoring and corrective and preventive maintenance activities.

TOTAL, Surveillance and Maintenance

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	0	15,048
<u>\$64,845</u>	<u>\$112,544</u>	<u>\$122,690</u>

#### **Stabilization**

- Plutonium Finishing Plant--In FY 1996, completed thermal stabilization of 46 items of high risk plutonium bearing incinerator ash correcting a plutonium vulnerability identified by the DOE Plutonium Vulnerability Assessment Team; completed public review and issued Record of Decision for PFP stabilization Environmental Impact Statement; completed upgrade of PFP Central Monitoring and Power Control Room; completed development testing of plutonium solution technologies resulting in a stabilization methodology for remaining PFP solutions; completed removal of approximately 200 feet of plutonium contaminated ventilation ductwork; shipped 7,400 gallons of aluminum nitrate non hydrate to DOE at Idaho Falls; addressed the last remaining chemical vulnerability identified by the DOE Chemical Vulnerability Assessment Team; completed Functional Design Criteria and initiated Conceptual Design Report for Plutonium Stabilization and Handling (PUSH) system. In FY 1997, perform material stabilization and facility cleanup activities consistent with the schedule of Defense Nuclear Facilities Safety Board Recommendation 94-1; begin processing plutonium solutions and stabilize 82 Kg of plutonium (out of 335 Kg plutonium remaining in solution); immobilize 1,589 Kg of 3,765 Kg total remaining bulk plutonium residues;



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### Stabilization (Continued)

- Plutonium Finishing Plant (Continued)

stabilize the remaining 352 plutonium metal buttons (736 Kg plutonium); complete ventilation duct terminal cleanout of approximately 600 feet of piping; complete vertical calciner and pyrolysis furnace projects; support site preparation for installation of the Plutonium Stabilization and Handling system; complete Conceptual Design Report for the PUSH system; initiate Advanced Conceptual Design Report and complete project validation; provide project management, engineering, safeguards and security, and data processing support to the proposed construction project. In FY 1998, will use denitration, calcination or precipitation to remove from solution 253 Kg of plutonium (out of 253 Kg plutonium remaining in solution); operate thermal stabilization furnaces to stabilize reactive plutonium bearing solids; immobilize up to 1,678 Kg of 2,176 Kg total remaining bulk plutonium residues; remove readily retrievable plutonium bearing materials from shutdown plutonium production lines; and upgrade vaults to allow storage of DOE standard plutonium storage containers.

FY 1996

FY 1997

FY 1998

\$23,522

\$24,082

\$20,590

- Spent Nuclear Fuel

- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, provide overall technical direction for the Spent Nuclear Fuel (SNF) project; continue to develop and maintain an executable technical schedule and cost baseline consistent with the Systems Engineering bases; proactively maintain two-way communication between stakeholders, the public, and the SNF project. In FY 1998, will continue those activities described for FY 1997.

0

19,832

21,564

- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, begin the manufacturing of Multi-Canister Overpacks (MCO); receive the first 50 MCOs; complete fabrication of MCO production equipment; receive Cask/Transport System for training; and complete basin modifications. In FY 1998, will continue MCO production; complete training and Operational Readiness Review (ORR) for Cask/Transport System; and begin operation of Cask/Transport System.

0

17,817

18,914

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Stabilization** (Continued)

##### • Spent Nuclear Fuel (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, continue construction of Canister Storage Building (CSB); complete Safety Analysis Report; begin construction of Cold Vacuum Drying (CVD) facility; and complete Hot Conditioning Facility (HCF) definitive design. In FY 1998, will complete CSB construction and CVD facility; begin CSB operations to move SNF away from the Columbia River; complete CVD facility ORR; complete HCF process equipment installation; and complete HCF ORR. Construction funding for project 96-D-406, Spent Nuclear Fuels Canister Storage Stabilization Facility, is requested in the National Defense Asset Acquisition appropriation (\$16,744,000).	0	73,379	22,199
- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, the SNF project maintains interface control and integration support ensuring that development and implementation of an overall plan for characterization, packaging, transportation, and storage of other Hanford SNF is consistent with the National SNF Program decisions. In FY 1998, will continue those activities described for FY 1997.	0	334	389
- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, complete Fuel Retrieval Subproject detailed design and complete construction in K West Basin. In FY 1998, will complete Fuel Retrieval System in K East; begin operations; and initiate sludge transfer from K East to Tank Waste Remediation System.	0	36,652	33,647

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### Stabilization (Continued)

##### • Spent Nuclear Fuel

- In FY 1996, this activity was funded in the Office of Waste Management. In FY 1997, support the viability assessment of Fuel Data Requirements; continue support for the Storage and Disposal Assessment Team; complete independent review of the cost estimate for the Savannah River Site spent nuclear fuel dry fuel transfer, handling and storage facility; provide technology development for the Spent Nuclear Fuel Program; and characterization of spent nuclear fuel. These activities are performed in support of the National Spent Nuclear Fuel Program. In FY 1998, funds are requested at Idaho to support the National Spent Nuclear Fuel program. These funds will be distributed as needed to support the National Program.

TOTAL, Stabilization

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	660	0
<u>\$23,522</u>	<u>\$172,756</u>	<u>\$117,303</u>

#### Deactivation

- Program and Environmental Management--In FY 1996, supported site-wide deactivation planning through facility assessments of candidate deactivation projects and development of end-point criteria, surveillance and maintenance plans, regulatory documentation, facility deactivation designs, and facility turnover packages, and developed and maintained an executable technical, schedule, and cost baseline. In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996. Also, in FY 1998, will provide funding for accelerating deactivation planning and management activities associated with the transition of contaminated surplus facilities.

4,015	3,021	3,680
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## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Deactivation** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>• <u>PUREX</u>--In FY 1996, removed the entire 3,200 kilograms of spent nuclear fuel; assessed and reduced 35 percent of contaminated areas (53,000 square feet); disposed of the entire inventory of 80,000 liters of radioactively contaminated organic solvent; completed transfer of 308,000 liters of surplus uranium contaminated nitric acid; initiated consolidation of the canyon heating, ventilation, and air conditioning (HVAC) systems exhaust paths from 11 to 1; stabilized the final 12 gloveboxes. In FY 1997, complete all deactivation activities including reducing the remaining 10 percent (15,000 square feet) of contaminated areas, disconnecting all utilities, deactivating radiation/fire protection and monitoring systems, and consolidating HVAC and electrical systems for required ventilation and filtering. In FY 1998, will complete the following activities: complete document closure of the Tri-Party Agreement (TPA) milestone and end-point criteria and closeout items associated with the PUREX project.</li> </ul>	19,501	5,206	574
<ul style="list-style-type: none"> <li>• <u>300 Area Fuel Supply</u>--In FY 1996, completed clean closure Resource Conservation and Recover Act (RCRA) of Building 304 concretion, transferred 710 metric tons of uranium billets to the United Kingdom, and completed deactivation of Buildings 303-M, 304, and 311 Tank Farm. In FY 1997, complete Building 313 South Phase I portion of Waste Acid Treatment System (WATS) RCRA closure activities. In FY 1998, will isolate Building 313 South which contains a high risk deteriorated roof; and complete RCRA closure of Building 303K and WATS.</li> </ul>	3,823	2,889	1,658

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Deactivation** (Continued)

- **B Plant**--In FY 1996, this activity was funded in the Office of Waste Management program. In FY 1997, deactivate 25 facility systems for organic inventory storage; remove and stabilize highly radioactive materials from process equipment and structures; stabilize canyon exhaust filters; initiate decoupling of WESF from B Plant, eliminate surface contamination in surrounding environments; and shut down costly steam supply to eliminate high cost reliance. In FY 1998, transfer operating control systems from B Plant to WESF. Also, will complete decoupling of WESF from B Plant and complete deactivation of B Plant by the end of calendar year 1998. Construction funding for project 97-D-451, B Plant Safety Class Ventilation Upgrades, is requested in the National Defense Asset Acquisition appropriation (\$2,000,000).

TOTAL, Deactivation

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	16,753	12,744
<u>\$27,339</u>	<u>\$27,869</u>	<u>\$18,656</u>

#### **Program Direction**

- In FY 1996, provided salaries, benefits, travel, and training for Federal employees for oversight and management of the contractor workforce responsible for performing Nuclear Material and Facility Stabilization activities for the Department of Energy at the Richland Operations Office. Beginning in FY 1997, these activities are budgeted in the Program Direction account.

TOTAL, Program Direction

26,304	0	0
<u>\$26,304</u>	<u>\$0</u>	<u>\$0</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

FY 1996

FY 1997

FY 1998

#### **Site-Wide Landlord**

- In FY 1996, provided site integration activities in order to supply safe, sound and cost-effective support services to all Hanford Environmental Management programs. These activities included: completing cleanup activity at the 3,000 Area (72 acres) and excessing the facility to the Port of Bentons; isolating and shutting down of 85 vacant general purpose facilities; demolishing 4 general purpose facilities; disposing 8 contaminated and regulated rail cars; replacing unsafe roofs on 15 buildings; maintaining deteriorated roads and paved areas essential to site operations; upgrading emergency sirens for compliance; providing surveillance and maintenance for general purpose infrastructure; and providing site wide support services. Provided annual funding for: Hanford Oregon Waste Board; Washington State Department of Ecology's oversight and management of the Tri-Party Agreement; Washington's emergency response capability; document declassification; health information; legal expenses associated with down winder litigation; and Payments-in-Lieu-of-Taxes to three Washington State counties. In FY 1997, continue to provide site integration activities as previously stated in order to support all Hanford environmental management programs. Notable activities include the replacement of three unsafe roofs. In temporary facilities, train hazardous materials workers for a cost effective environmental cleanup program. In FY 1998, continue to provide site integration activities as stated previously in order to support all Hanford environmental management programs. Also in FY 1998, funding reflects increased activities that crosscut programs, including: meteorological climatological services, ecosystem management, environmental management, cultural resources, and site-wide planning, integration and risk assessment and management. Notable activities include: characterization of the 231-Z Building, rerouting electrical distribution lines for energy efficiency, and performing site-wide systems engineering. Begin operation of the Hazardous Materials Management and Emergency Response (HAMMER) Training Center, thereby introducing full scale props into the training curriculum.

55,032

31,039

56,374

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Site-Wide Landlord** (Continued)

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>In FY 1996, provided Capital Equipment Not Related To Construction (CENRTC) projects for general purpose facilities (GPF) in order to supply safe, sound and cost-effective support services to all Hanford Environmental Management programs. Notable projects were: Hanford Emergency Alarm Dispatch System Upgrade, Phase I; Traveling River Screens Replacement; Area Emergency Sirens, Phase I; CAD Vehicle Computers, Phases II and III; and other miscellaneous CENRTC items for telecommunications, sewer water, and electrical distribution systems. In FY 1997, continue to provide CENRTC for GPF. Notable projects include Area Emergency Sirens, Phase II and the replacement of vital fire department and water systems equipment. In FY 1998, continue to provide CENRTC for GPF. Notable projects include Area Emergency Sirens, Phase III and the replacement of water, electrical distribution, fire department, and vital safety related shop equipment.</li> </ul>	4,719	1,814	3,345
<ul style="list-style-type: none"> <li>In FY 1996, provided General Plant Projects (GPP) for general purpose facilities (GPF) to ensure that Environmental Management support activities are safe, sound and cost effective. Projects initiated were: 2750E Building and Adjacent Facilities, Sanitary Waste Water System and 337 Chiller Replacement. In FY 1997, continue to support GPP projects for GPF. Key accomplishments include the completion of: 2750E Building and Adjacent Facilities Sanitary Waste Water System and 337 Chiller Replacement. Other projects planned are: Infrastructure Fiber Loop - Inter Area and 200 East Central Core GPF Sanitary Sewer System Replacement. In FY 1998, continue to support GPP projects for GPF. Key accomplishments include the completion of Infrastructure Fiber Loop - Inter Area. Other projects planned are: 200 West Area Sanitary Sewer System Replacement; 100 Area Sanitary Waste Water Lagoon Upgrade; and Outer Area Fiber Optic Loop.</li> </ul>	2,210	4,500	2,078

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Site-Wide Landlord** (Continued)

- In FY 1996, completed construction on the 324 Facility Compliance/ Renovation line item project (95-D-454) that brings 324 Building systems into compliance with environmental, safety and health requirements. In FY 1997, will complete construction on the HAMMER Project (95-E-600). In FY 1998, no activity.

TOTAL, Site-Wide Landlord

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
2,500	7,900	0
<u>\$64,461</u>	<u>\$45,253</u>	<u>\$61,797</u>

#### **Transportation Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, work will continue on the development of the Automated Transportation Management System (ATMS) and its component, the Explosives Classification Tracking System (ECTS), and the Packaging Management Tracking System (PMTS). In FY 1998, implementation of ATMS at major DOE sites will be completed, and work will continue on PMTS. Activities focused on conducting motor carrier evaluations to ensure carriers transporting DOE materials are of the highest quality, conducting commercial carrier rate/service negotiations, and conducting the Department's Explosives Classification and Registration Program. Work progressed on the re-engineering of the DOE's transportation and packaging activities. Also, continue to provide regulatory compliance training to the DOE community to meet the federally mandated requirements of 49 CFR. In FY 1998, implementation of ATMS at major DOE sites will be completed, and work will continue on PMTS. Work will continue on carrier evaluations and negotiations, and operating the explosives program. Also, continue to provide the training necessary for the DOE transportation community to remain compliant during shipping activities.

TOTAL, Transportation Management

0	1,920	2,050
<u>\$0</u>	<u>\$1,920</u>	<u>\$2,050</u>



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### **Emergency Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program. In FY 1998, activities will include the completion of the TEPP program and focus attention on a technical assistance program for State, tribal and local governments.

TOTAL, Emergency Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	100	150
<u>\$0</u>	<u>\$100</u>	<u>\$150</u>

#### **Characterization Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, through facilitation activities to define specific problems and focus environmental data needs, ground water monitoring and other environmental program decisions across DOE complex will be more cost-effective and defensible. In FY 1998, the activities initiated during FY 1997 will be completed. Site-wide policy and training to manage information and reduce costs of ground water monitoring will be developed. Additional monitoring program needs will be identified that represent significant cost avoidance opportunities and broad application.

TOTAL, Characterization Management

0	2,232	800
<u>\$0</u>	<u>\$2,232</u>	<u>\$800</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Richland

#### Pollution Prevention

- In FY 1996 funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects. In FY 1998, the Hanford Site and the Pacific Northwest National Laboratory will continue to work on hazardous and sanitary waste reduction in support of the Secretarial goal for the Department. In addition, the Hanford site will continue efforts to include pollution prevention concepts in Environmental Restoration projects.

TOTAL, Pollution Prevention

TOTAL, RICHLAND

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	3,800	3,200
<u>\$0</u>	<u>\$3,800</u>	<u>\$3,200</u>
\$206,471	\$366,474	\$326,646

#### Significant Funding Changes From FY 1997 to FY 1998:

- The net increase in surveillance and maintenance funding reflects the transfer of the PUREX Facility to the Office of Environmental Restoration (\$-17,420,000); the Waste Encapsulation and Storage Facility no longer receiving support from B-Plant (\$+4,463,000); the startup of fuel removal activities in the K-Basins and support of the basin water treatment/filtration system (\$+11,424,000); the transfer of Buildings 324 and 327 activities from the Office of Waste Management (\$+15,048,000); and an overall reduction in surveillance and maintenance activities at 300 Area Fuel Supply, Plutonium Finishing Plant, and B Plant (\$-3,369,000).

+10,146

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Richland (Continued)

- Decrease in stabilization funding reflects the completion of: ventilation duct terminal cleanout; vertical calciner and pyrolysis furnace projects; and conceptual design for the Plutonium Stabilization and Handling System at the Plutonium Finishing Plant. The Spent Nuclear Fuel funding reduced due to completion of the Hot Conditioning Facility definitive design and construction in K West Basin. In addition, the construction funding for project 96-D-406, Spent Nuclear Fuels Canister Storage Stabilization Facility (\$-16,744,000) is requested in the National Defense Asset Acquisition appropriation. -55,453
- Decrease in deactivation funding reflects the completion of the PUREX deactivation project and reflects progress made on completion of the B Plant deactivation project, and the construction funding for project 97-D-451, B Plant Safety Ventilation Upgrade, is requested in the National Defense Asset Acquisition appropriation (\$-2,000,000). -9,213
- Increase for Site-Wide Landlord funding is due to additional demands in: Payment-in-Lieu-of-Taxes and health effects studies, along with new work in site-wide systems engineering. Site-wide systems engineering continuously monitors changing customer demands and determine what changes to the site technical baseline are needed or desired for sound and cost-efficient operations. Increase is also due to funding for site-wide planning and integration, Hanford Environmental Management Program, and public safety and resource protection. +25,335
- The Capital Equipment Not Related to Construction (CENRTC) funding increases for Site-Wide Landlord are due to the need to replace vital fire department, water systems, electrical distribution, and vital safety related shop equipment that has reached or surpassed its life cycle and is required to support all environmental management activities. +1,531
- The reduction in Site-Wide Landlord GPP funding is made possible by: a decrease in site population, reduction or elimination of demands for some site services, and facility consolidation or reuse. -2,422
- Line Item funding decreases in Site-Wide Landlord is due to the completion of the Hazardous Materials Management and Emergency Response (HAMMER) Project (95-E-600). -7,900
- Increase in Emergency Management funding is due to initiating a technical assistance program for State, tribal and local governments. +50
- Decrease in Characterization Management funding is due to completion of FY 1997 activities. -1,432

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

ROCKY FLATS

I. Mission Supporting Goals and Objectives

The Rocky Flats Plant is located 15 miles northwest of Denver, Colorado, on an 11 square mile site. The plant was used to shape plutonium, fabricate alloy, and operate conventional metal production processes. When operations ceased, large amounts of plutonium, plutonium compounds, and metallic residues remained in the production lines, tanks, and processes furnaces.

The highest priority at Rocky Flats continues to be the protection of workers, the public, and the environment from exposure to plutonium and other potential hazardous materials, and to safeguard plutonium from terrorists and espionage. Another high priority is compliance with the laws, legal agreements, DOE Orders, and other requirements which affect virtually all activities at the site. Activities which address these two priorities are considered "core activities." These activities are complex, people intensive, and costly.

Liability reduction activities are aimed at reducing risks and/or the cost of core activities. Key risk reduction activities and strategies at the site include: shipping hazardous and excess materials offsite, consolidating plutonium in safer and easier to secure locations; converting plutonium liquids to a solid, safer, easier to handle form; providing ventilation for containers which have potential for hydrogen generation; and removing sources of contamination in the ground to cease or inhibit further spreading.

Key core cost reduction activities include: deactivating high upkeep facilities which are no longer needed; re-engineering processes and procedures for greater efficiency; and installing labor-saving technology and equipment.

Rocky Flats Field Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

In FY 1997 and FY 1998, the Rocky Flats program was budgeted in the Office of Environmental Restoration, except for the Pollution Prevention program.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Rocky Flats

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	\$152,001	\$0	\$0	\$0	0%
Program Support .....	18,981	0	0	0	0%
Stabilization .....	114,943	0	0	0	0%
Site-Wide Landlord .....	131,762	0	0	0	0%
Program Direction .....	19,604	0	0	0	0%
Pollution Prevention .....	0	650	600	-50	-8%
 TOTAL, Rocky Flats .....	 \$437,291	 \$ 650	 \$ 600	 \$ -50	 -8%

### III. Performance Summary - Accomplishments

#### Surveillance and Maintenance

- Performed 150,000 surveillance and 125,000 maintenance and operations support activities annually to safely store and handle over 13,040 kilograms of plutonium in 15 former weapon component manufacturing facilities and completed transfer of plutonium pit surveillance program to the Los Alamos National Laboratory in September 1996.

TOTAL, Surveillance and Maintenance

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
152,001	0	0
<u>\$152,001</u>	<u>\$0</u>	<u>\$0</u>

#### Program Support

- Provided training; conduct of operations improvements; radiological technician support; criticality safety support; and occurrence reporting support.

TOTAL, Program Support

18,981	0	0
<u>\$18,981</u>	<u>\$0</u>	<u>\$0</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Rocky Flats

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Stabilization</u></b>			
<ul style="list-style-type: none"> <li>Completed Title I engineering and initiated Title II engineering for the Residue Elimination Program (Salts, Ash, and Wet/Dry Combustibles), including stage I strip out of selected glovebox equipment in Buildings 371 and 707. Purchase orders were submitted to vendors for long-lead procurement items. Activity Control Envelopes were developed for the Ash and Wet stabilization projects.</li> </ul>	37,563	0	0
<ul style="list-style-type: none"> <li>Completed the drum venting program, by venting the remaining 600 55-gallon drums. Repackaged an additional 100 of the 700 inorganic drums to be repackaged, for a total of 105 drums. Initiated closure of 21 mixed residue container storage units and completed closure of 10 units. Cemented 9 drums of ion exchange resins. Neutralized 4 drums of nitric acid contaminated leaded rubber gloves.</li> </ul>	5,502	0	0
<ul style="list-style-type: none"> <li>Conducted 8 furnace runs on ash-like material (pulverized sand, slag, and crucible and graphite scarfing fines) to complete the ash residue calcination treatability study. Initiated operations on microwave vitrification of oily sludge. Continued development, demonstration, and testing for wet combustibles. Completed sampling and analysis of 30 residue containers (salts and ion exchange resins) for a total of 69 samples. Completed NEPA analysis and issued a FONSI for stabilization of approximately 106 metric tons of plutonium contaminated residues.</li> </ul>	6,877	0	0
<ul style="list-style-type: none"> <li>Completed sampling, brushing, and repackaging 1,373 of 1,858 plutonium items in direct contact or in close proximity to plastic, and thermally stabilized approximately 39kg of plutonium oxide generated from these brushing activities by October 1996.</li> </ul>	3,805	0	0
<ul style="list-style-type: none"> <li>Initiated design of plutonium stabilization and packaging system prototype for installation in B707. This system will stabilize and package plutonium metal and oxide to meet the long-term (50-year) safe storage requirements.</li> </ul>	14,084	0	0
<ul style="list-style-type: none"> <li>Completed consolidation of Category I and II special nuclear material out of Buildings 991, 779 into 371.</li> </ul>	8,212	0	0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Rocky Flats

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Stabilization</u></b> (Continued)			
<ul style="list-style-type: none"> <li>Completed operational readiness review to allow restart of plutonium solution tank draining activities, stopped in FY 1994, and subsequently drained seven tanks containing low-level plutonium solutions (1,083 liters) and four tanks containing plutonium/uranium solutions (123 liters). Completed building modifications in preparation for precipitation activities in B771 and B371 and initiated readiness assessment to allow start of hydroxide precipitation activities in B771.</li> </ul>	19,800	0	0
<ul style="list-style-type: none"> <li>Completed readiness assessment and began activities to drain highly enriched uranyl nitrate solutions from eight tanks in B886. Drained 1,320 liters out of a total of 2,700 liters into bottles for off-site shipment. Shipped 1,280 liters offsite to a commercial facility for conversion to a stable form.</li> </ul>	19,100	0	0
	<hr/>	<hr/>	<hr/>
TOTAL, Stabilization	\$114,943	\$0	\$0
<b><u>Site-Wide Landlord</u></b>			
<ul style="list-style-type: none"> <li>Maintained the site infrastructure including roads, the steam plant, and the water system; provided support for occupational safety and health on the site including the radiological protection program, nuclear safety program, and health and safety program; provided site infrastructure operations, including water, telecommunications, safeguards and security, natural gas, steam and electrical supplies, emergency preparedness, shipping and receiving etc.; and provided program management and support for all site programs, including, for example, site-wide air, surface water, and ground water monitoring, engineering, project and construction oversight, nuclear criticality safety support, Resource Conservation and Recovery Act permitting and compliance support, and fire protection engineering at Rocky Flats.</li> </ul>	79,893	0	0
<ul style="list-style-type: none"> <li>Began construction for the Underground Storage Tank project to replace 22 tanks to comply with Resource Conservation and Recovery Act requirements and avoid penalties of \$5,000 per tank/day.</li> </ul>	5,120	0	0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Rocky Flats

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Site-Wide Landlord</u></b> (Continued)			
• Continued construction on the Health Physics/Environment Projects replacing existing effluent monitoring systems (Record Samplers) to include exhaust duct mixing systems, sampling probes, transport lines, and record sampling stations in each of 9 buildings.	80	0	0
• Completed construction on the Environmental Safety and Health Enhancements project.	3,750	0	0
• Continued construction on the Infrastructure Replacement project. Activities included installing new 115 KV/13.8 KV plant main substation; demolishing old substation 555/558; and removing PCB and asbestos contaminants.	2,940	0	0
• Continued construction on the Plant Fire/Security System Replacement project to provide for replacement of the existing security alarm and fire alarm systems.	16,206	0	0
• Initiated design for the Criticality Alarms and Plant Annunciation System project to replace the 45-year old communication systems. When completed this system will save \$5.4 million per year.	3,300	0	0
• Conducted an Environmental Monitoring Program (over 72,000 samples) annually including Air, Surface/Ground water monitoring, Soil Sampling and Chemical Tracking.	15,143	0	0
• Continued construction on the Master Safeguards and Security Agreement/Material Surveillance Task Force Security Upgrades to increase the security and safety of Special Nuclear Materials, vital equipment, classified matter, and government property.	5,330	0	0
TOTAL, Site-Wide Landlord	<u>\$131,762</u>	<u>\$0</u>	<u>\$0</u>



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Rocky Flats

#### **Program Direction**

- Provided funding for FTE Federal employees for management and oversight of the Nuclear Material and Facility Stabilization activities, milestones, and performance measures. In FY 1997, these activities were budgeted in the Program Direction account.

TOTAL, Program Direction

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
19,604	0	0
<u>\$19,604</u>	<u>\$0</u>	<u>\$0</u>

#### **Pollution Prevention**

- In FY 1996, funds were appropriated in the Waste Management program.
- Implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects.

TOTAL, Pollution Prevention

TOTAL, ROCKY FLATS

0	650	600
<u>\$0</u>	<u>\$650</u>	<u>\$600</u>
\$437,291	\$650	\$600

#### Significant Funding Changes From FY 1997 to FY 1998:

- None.

NUCLEAR MATERIAL AND FACILITY STABILIZATION DEFENSE  
(Dollars in Thousands)

SAVANNAH RIVER

I. Mission Supporting Goals and Objectives

The Savannah River Site, located near Aiken, South Carolina, produced nuclear materials for defense purposes. As one of the Department of Energy's (DOE) larger sites, it includes five nuclear reactors, two chemical separations facilities, fuel and target fabrication facilities, tritium processing facilities, a heavy water rework facility, two high-level waste tank farms, low-level waste, storage and disposal facilities, a high-level waste treatment facility (Defense Waste Processing Facility), and the Savannah River Technology Center. In keeping with the Nation's nuclear weapons reduction initiatives, the Department has ceased production of nuclear materials and, except for plans for new tritium production, is now focused on stabilization of the nuclear material inventories and preparation of surplus facilities for eventual decontamination and decommissioning.

The Office of Nuclear Material and Facility Stabilization's mission is to stabilize nuclear materials and then deactivate facilities to a point that minimal funding is necessary to maintain the facilities until they can be decontaminated and decommissioned. Stabilization means that changes must be made (conversion from a liquid to a solid, removal of highly radioactive constituents, repackaging, etc.) in the form and/or storage conditions for nuclear materials such that they can be stored and/or dispositioned with minimal risk to the workers, the public, and/or the environment. As long as significant quantities of nuclear materials in liquid or unstable form continue to reside in the production facilities, all the attributes of an operating facility must be maintained including security, radiation protection, material control and accountability, trained and certified operator and maintenance personnel, essential safety system operation, emergency response capability, sampling and monitoring, configuration management, fire protection, maintenance of safety authorization basis, etc. Thus, the cost of continuing to store these materials in their current condition (Surveillance and Maintenance part of the budget) is very high and approaches the cost of operating the facilities for production or stabilization.

Deactivation begins once the bulk nuclear materials are removed from a facility and consists of activities such as removal of hazardous chemicals, flushing and cleanout of systems and equipment, etc., to the point that little contamination or safety risk to workers, the public, and/or the environment exists. As this is achieved, the attributes of an operating nuclear facility described above can be eliminated or substantially curtailed resulting in major reductions in surveillance and maintenance costs.

The purpose of the Spent Nuclear Fuel (SNF) program is to accept and manage foreign and domestic research reactor SNF and manage Savannah River production reactor SNF; integrate Savannah River technical input into the planning and implementation of the Department of Energy National SNF Policy and Program Plans including: requests for special data and support of special projects, as well as providing information for the DOE complex SNF and facility databases; and develop alternative treatment and packaging technologies for aluminum

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Savannah River (Continued)

clad research reactor SNF, with specific focus on direct co-disposal with high-level waste and melt and dilute/poison technologies, that would put the research reactor SNF in a form suitable for geologic disposal without necessarily separating the fissile materials.

In performing the above functions for the Office of Nuclear Material and Facility Stabilization, the Savannah River Operations Office manages those activities at the Savannah River Site that help to achieve key programmatic goals. The Office of Nuclear Material and Facility Stabilization's goals are to: 1) reduce risks, 2) lower the mortgage cost of doing business, and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

At Savannah River, much progress has been made to achieve these goals: stabilization of 3,500 gallons of Pu-242 solutions, 80,000 gallons of F-Canyon Pu-239 solutions, and 16,000 corroding target slugs from the L-Reactor basin has already been achieved. In addition, extensive deactivation of the reactor, heavy water production, and fuel fabrication facilities has resulted in major reductions in the surveillance and maintenance costs for these facilities. Furthermore, the 1,900 spent production reactor fuel assemblies have been consolidated to just two reactor basins (L and K) to minimize costs at the P-Reactor. Further substantial facility deactivation will take place once the nuclear materials remaining in the processing facilities (9,000 gallons of Pu-239 solutions, 1,600 gallons of Np-237 solutions, gallons of enriched uranium solutions all currently in the H-Canyon and 3,800 gallons of Am/Cm solutions and 2,800 packages of plutonium residues all currently in the F-Canyon) and in the reactor basins are stabilized. Thus, expedited stabilization of these materials and construction of the Actinide Packaging and Storage Facility for consolidated storage is currently the highest priority, both from a risk and a cost standpoint. Since stabilization of some of the materials will require extensive facility preparations and/or modifications, completion will take another several years. The program will comply with National Environmental Policy Act (NEPA) requirements during all of its phases.

Several examples of reducing risks at Savannah River in FY 1998 are as follows:

- In FY 1998, processing of sand, slag and crucible and miscellaneous Pu-239 metal will continue in F-Canyon and preparations for vitrification of the Np-237 and Am/Cm solutions in the Multi-Purpose Processing Facility (MPPF), part of F-Canyon, will proceed to support the FY 1999 startup of the vitrification capability. Funding is also provided for possible H-Canyon options pending completion of a Congressionally mandated evaluation of the strategy for canyon operation. Also, preparations for transferring the Np-237 and Pu-239 solutions to the F-Canyon will be continued.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### I. Mission Supporting Goals and Objectives: Savannah River (Continued)

Funding is requested for landlord activities related to the management of general purpose infrastructure (i.e., "balance of site") and site-wide support services that are essential for owning, operating, and accomplishing essential missions at DOE Environmental Management sites. Specific examples of infrastructure and support systems include: grounds, roads, general purpose buildings, utilities, communications, computers and information, fleet management, maintenance and fabrication, emergency services, land management, analytical laboratories, and environmental test facilities.

The goal of the landlord program is to ensure that the general purpose infrastructure and site services are always ready to safely, reliably, and efficiently support environmental management activities in a cost-effective manner.

The end-state goal is the implementation of the minimum set of landlord support functions. Surplus facilities or equipment will be either recycled for interim or indefinite alternative uses by DOE, transferred for reuse by another government agency, excessed to the General Services Administration (GSA), transferred to Environmental Restoration for remediation, or demolished. Once established, the end-state will minimize DOE overhead costs and, in some cases, avoid unnecessary capital costs.

Savannah River Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of waste streams to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The budget will continue to focus on the safe maintenance of facilities within the residual production complex both before and following stabilization activities; continue efforts to achieve and maintain compliance with all applicable laws, regulations, and Department of Energy Orders; and maintain progress toward improving the conduct of all remaining operations.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### II. Funding Schedule: Savannah River

<u>Program Activity</u>	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Surveillance and Maintenance .....	\$422,937	\$389,023	\$360,365	\$-28,658	-7%
Stabilization .....	49,418	99,563	103,491	+3,928	+4%
Deactivation .....	0	887	0	-887	-100%
Program Direction .....	33,011	0	0	0	0%
Program Support .....	20,294	0	0	0	0%
Site-Wide Landlord .....	68,446	52,936	26,322	-26,614	-50%
Emergency Management, .....	0	150	150	0	0%
Pollution Prevention .....	0	3,133	2,000	-1,133	-36%
 TOTAL, Savannah River	 \$594,106	 \$545,692	 \$492,328	 \$-53,364	 -10%

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

### III. Performance Summary - Accomplishments:

#### Surveillance and Maintenance

##### **Reactor and Heavy Water:**

- Since the end of the reactor production mission, the reactors have been primarily providing a “warehousing function” for nuclear material. In FY 1996, irradiated spent nuclear fuel was stored in the K, L, and P Reactor facilities awaiting processing in the canyon facilities or some other disposition. Heavy water was stored in the K, L, P, C, R, and Heavy Water areas. Fresh highly enriched uranium fuel was also stored in the K-Reactor facility, pending ultimate disposition. Upgrades to improve the water chemistry in the K and L fuel storage basins were completed. Additional fuel storage space in the L-Basin for the storage of offsite fuel was completed. A significant level of surveillance and maintenance must be maintained to provide for the safe storage and monitoring of these materials to ensure public and

FY 1996\*      FY 1997\*      FY 1998

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
<b><u>Surveillance and Maintenance</u></b> (Continued)			
<b>Reactor and Heavy Water:</b> (Continued)			
worker safety. Necessary surveillance and maintenance activities include: radiation protection, material control and accountability, operator and maintenance personnel certification, emergency response capability, fire protection, maintenance of safety authorization basis, sampling and monitoring, and maintenance of safety systems and other equipment. In FY 1997 and FY 1998 modifications to the L fuel storage basin will continue to support receipt of offsite spent fuel.	64,213	82,124	74,623
<b>Receiving Basin for Offsite Fuel (RBOF):</b>			
• Provides for operations necessary to receive spent nuclear fuel from domestic and foreign research reactors. The presence of significant amounts of spent nuclear fuel in RBOF requires that a high level of surveillance and maintenance be sustained to ensure the safety of workers and the public and the continued safe storage of the spent nuclear fuel. RBOF contains spent nuclear fuel (about 52 metric tons of heavy metal) containing enriched uranium, plutonium, and other fission products. Necessary surveillance and maintenance activities include: radiation protection, material control and accountability, operator and maintenance personnel qualification, emergency response capability, fire protection, maintenance of safety authorization basis, sampling and monitoring, and maintenance of safety systems and other important equipment. In FY 1996 added staff to support seven day, twenty-four hour operations beginning in April and received 11 casks of foreign research reactor fuel elements (3 in October 1995 and 8 in September 1996) in support of non-proliferation policy. Received 9 casks of domestic research reactor fuel. In FY 1997 will receive 18 casks of foreign research reactor fuel elements in support of non-proliferation policy. In addition, will receive 41 casks of domestic research reactor fuel. In FY 1998, will receive 34 casks of foreign research reactor fuel elements in support of nonproliferation policy. In addition, will receive 18 casks of domestic research reactor fuel.	12,160	19,594	22,155

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### **Surveillance and Maintenance** (Continued)

##### **F-Canyon:**

- In FY 1996, the presence of significant amounts of nuclear materials in F-Canyon requires that a high level of surveillance and maintenance be sustained to ensure the safety of workers and the public. F-Canyon contains plutonium-bearing solutions in the process lines and tanks, and 3,800 gallons of americium/curium bearing solution in a tank. Necessary surveillance and maintenance activities include: Radiation protection, material control and accountability, operator and maintenance personnel certification, emergency response capability, fire protection, maintenance of safety authorization basis, sampling and monitoring, and maintenance of safety systems and other equipment. These activities remain essentially the same in FY 1997 and FY 1998.

FY 1996\*

FY 1997\*

FY 1998

48,257

47,325

53,596

##### **FB-Line:**

- In FY 1996 the presence of significant amounts of nuclear materials in FB-Line requires that a high level of surveillance and maintenance be sustained to ensure the safety of workers and the public. FB-Line contains plutonium-bearing solutions in the process lines and 2,800 containers of plutonium residues in storage vaults. Necessary surveillance and maintenance activities include: Radiation protection, material control and accountability, operator and maintenance personnel certification, emergency response capability, fire protection, maintenance of safety authorization basis, sampling and monitoring, and maintenance of safety systems and other equipment. These activities remain essentially the same in FY 1997 and FY 1998.

38,253

21,502

27,310

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### **Surveillance and Maintenance** (Continued)

##### **Area Storage and Support:**

- In FY 1996 the presence of significant amounts of nuclear materials in F-Area storage facilities including Building 235-F vaults require that a high level of surveillance and maintenance be maintained to ensure the safety of workers and the public. F-Area storage facilities store, survey, and maintain containers of plutonium residues in existing storage vaults. Necessary surveillance and maintenance activities include: radiation protection, material control and accountability, operator and maintenance personnel certification, emergency response capability, fire protection, maintenance of safety authorization basis, sampling and monitoring, and maintenance of safety systems and other equipment. Also, included is surveillance and maintenance of non-nuclear facilities in F-Area and H-Area, including power plants, maintenance facilities, office buildings and fire stations; system engineering program for emergency power, fire protection, steam and utilities, public address, procurement, engineering support for parts and materials; training; computer system support, etc. Although these activities remain essentially the same in FY 1997 and FY 1998, significant re-engineering has occurred to reduce overall costs. In addition, completion of general plant projects and expenditure of capital equipment items occurred.

FY 1996\*

FY 1997\*

FY 1998

126,831

93,672

65,077

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### **Surveillance and Maintenance** (Continued)

##### **H-Canyon:**

- The presence of significant amounts of nuclear materials at H-Canyon requires that a high level of surveillance and maintenance be sustained to ensure the safety of workers and the public and the continued safe storage of the nuclear material. The materials at H-Canyon includes 1,600 gallons of neptunium-237 bearing solutions, 60,000 gallons of enriched uranium bearing solutions, and 9,000 gallons of plutonium-239 bearing solutions. Necessary surveillance and maintenance activities include: radiation protection, material control and accountability, operator and maintenance personnel training and qualification, emergency response capability, fire protection, maintenance of safety authorizations basis and documentation, sampling and analysis, monitoring, and maintenance of safety systems and other equipment necessary to the operation of H-Canyon. These activities remain essentially the same in FY 1997 and FY 1998.

FY 1996\*

FY 1997\*

FY 1998

46,962

51,023

49,743

##### **HB-Line:**

- HB-Line contains approximately 100 containers of various isotopes of plutonium and several glove box lines with plutonium contamination. In FY 96, HB-Line S&M activities centered around Pu-238 processing and preparation for Pu-242 stabilization. Surveillance and maintenance activities required in support of an inventoried facility include radiation protection, material control and accountability, operator and maintenance personnel certification, emergency response capability, fire protection, maintenance of safety systems and other important equipment. In FY 1997, HB-Line activities include Pu-242 stabilization and facility deinventory. Beginning in FY 1998, HB-Line will be kept in a deinventoried condition with minimum S&M.

15,898

19,455

13,178

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
<b><u>Surveillance and Maintenance</u></b> (Continued)			
<b>M-Area Transition:</b>			
<ul style="list-style-type: none"> <li>In FY 1996, the presence of significant amounts of Highly Enriched Uranium (HEU) in M-Area required that a high level of surveillance and maintenance be sustained to ensure the safety of workers and the public. Necessary surveillance and maintenance activities when the facility contained HEU included: radiation protection, material control and accountability, operator and maintenance personnel qualification, emergency response capability fire protection, maintenance of safety authorization bases, sampling and monitoring and maintenance of safety systems and other important equipment. In FY 1997 and FY 1998, the level of surveillance and maintenance will be maintained until such time as further deactivation can be funded.</li> </ul>	17,628	4,328	3,391
<b>Area Safeguards &amp; Security:</b>			
<ul style="list-style-type: none"> <li>In FY 1996, the presence of significant amounts of special nuclear materials (SNM) in K-Reactor, L-Reactor, RBOF, F-Canyon, FB-Line, 235-F, H-Canyon, and HB-Line required that a high degree of security to ensure the safety, as well as the protection, of the workers and the public. Armed guards and central alarm station specialists provided security services to prevent theft or diversion of SNM and classified matter or government property, sabotage of facilities, and acts of radiological/toxicological sabotage. They provided material area access control and response to operational or security emergencies. They provided a Special Response Team capability, aviation operations, canine team, as well as law enforcement and barricade staffing. The level of activities are unchanged in FY 1997 and FY 1998, except that security has been removed from the M-Area after the enriched uranium was removed from the facility.</li> </ul>	52,735	50,000	51,292
<b>TOTAL, Surveillance and Maintenance</b>	<u>\$422,937</u>	<u>\$389,023</u>	<u>\$360,365</u>

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

FY 1996\*

FY 1997\*

FY 1998

#### **Stabilization**

##### **Stabilization Activities:**

- With the change in mission for DOE weapons facilities from production to cleanup, many nuclear materials at SRS were left in intermediate unstable forms such as solutions and residues. The Department recognized the risk these materials presented to the public and workers, a conclusion that was confirmed when the Defense Nuclear Facilities Safety Board (DNFSB) issued Recommendation 94-1. Recommendation 94-1 identified the materials that the DNFSB believed posed the most risk and that should have priority for stabilization. Operations of SRS processing facilities have been planned to meet the commitments defined in the Department's implementation plan to DNFSB 94-1. Surveillance and maintenance activities discussed previously must be fully funded before the following stabilization and/or deactivation activities can be attempted.

##### **Reactors and Heavy Water:**

- In FY 1996, irradiated target shipments to the canyon for processing were initiated with 24 shipments being made. In FY 1997 and FY 1998, the shipment of irradiated spent nuclear fuel and targets to the canyon for processing will continue with 6 shipments to be made in FY 1997. In FY 1998, approximately 6-12 shipments of spent fuel elements will be made.

22,000

1,508

1,647

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### Stabilization (Continued)

##### **F-Canyon:**

- In FY 1996, started-up, characterized, and blended existing plutonium solutions and sent to FB-Line; began dissolving MK 31 targets; began transferring depleted uranium (DU) solution to H-Area; began decontamination and removal (D&R) of existing Multi-Purpose Processing Facility (MPPF) equipment in preparation for americium/curium (Am/Cm) stabilization; and began design work, fabrication, and testing of melter and process equipment to stabilize Am/Cm. In FY 1997, complete dissolving all MK-31 targets and failed TRR/EBR-II spent fuel and send to FB-Line for stabilization; begin dissolving plutonium sand, slag, and crucible (SSC) and send to FB-Line for stabilization; continue transferring DU solution to H-Area; complete D&R of MPPF for Am/Cm stabilization; continue design work, fabrication, and testing of melter and process equipment to stabilize Am/Cm. In FY 1998, continue dissolving plutonium SSC and send to FB-Line for stabilization; complete sending DU solution to H-Area; begin dissolving plutonium scrub alloy and send to FB-Line for stabilization; complete design work, fabrication and testing of melter and process equipment to stabilize Am/Cm; begin installation and testing of Am/Cm stabilization equipment in MPPF.

	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
	4,856	33,177	30,568

##### **FB-Line:**

- In FY 1996, started-up facility and stabilized existing plutonium solutions from F-Canyon. In FY 1997, stabilize MK-31 targets and failed TRR/EBR-II spent fuel solutions from F-Canyon; begin stabilizing plutonium SSC solution from F-Canyon, sweepings, and scrap; and design, install and test bagless transfer equipment. In FY 1998 continue stabilizing plutonium SSC solution from F-Canyon, sweeping, and scrap; begin stabilizing plutonium scrub alloy; and begin repackaging of existing plutonium metal from storage vaults using bagless transfer equipment.

	4,056	22,864	22,730
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\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
<b><u>Stabilization</u></b> (Continued)			
<b>Area Storage and Support:</b>			
<ul style="list-style-type: none"> <li>In FY 1996, characterized all unmeasured plutonium metal inventory stored in vaults and identified appropriate containers for shipment to F-Canyon /FB-line for dissolving/stabilization, respectfully. Begin receiving containers of stabilized plutonium from FB-Line for storage. In FY 1997, transfer designated cans of plutonium metal to FB-Line for processing to metal and continue receiving containers of stabilized plutonium from FB-Line for storage. In FY 1998, transfer designated containers of plutonium scrub alloy to F-Canyon for dissolving; begin transfer of plutonium metal containers to FB-line for repackaging using bagless transfer equipment; and continue receiving containers of stabilized plutonium from FB-Line for storage.</li> </ul>	2,212	5,892	7,495
<b>HB-Line:</b>			
<ul style="list-style-type: none"> <li>In FY 1996, HB-Line completed preparations to stabilize Pu-242 solutions. Actual stabilization of Pu-242 in HB-Line began in early FY 97 and should be complete in January 1997 after which the HB-Line role in stabilization is expected to be complete pending the results of a congressionally mandated evaluation of the strategy for canyon operations. This will be followed by facility deinventory. In FY 1998, no activity.</li> </ul>	4,936	3,303	0

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
<b><u>Stabilization</u></b> (Continued)			
<b>H-Canyon:</b>			
<ul style="list-style-type: none"> <li>Stabilization activities include the removal of radioactive decay material from solutions of Pu-238 and Pu-242 prior to stabilization to a solid form in HB-Line; and the dissolution of aluminum clad spent nuclear fuel and separation of enriched uranium solutions from fission products followed by dilution to low enriched uranium. Completed processing of post-Cassini plutonium-238 solutions in FY 1996. In FY 1997, completed processing of about 13,000 liters of plutonium 242 solutions and will implement options for H-Canyon operation pending the results of a congressionally mandated evaluation of canyon operating strategy. In FY 1998, will continue implementation of options for H-Canyon operation pending the results of a congressionally mandated evaluation of canyon operating strategy.</li> </ul>	11,358	13,026	25,451
<b>Spent Nuclear Fuel:</b>			
<ul style="list-style-type: none"> <li>The purpose of this program is to integrate Savannah River technical input into the planning and implementation of the Department of Energy National Spent Nuclear Fuel (SNF) Policy and Program Plans, including: requests for special data and support of special projects as well as providing information for the DOE complex SNF and facility databases. The program will accept and manage foreign and domestic research reactor SNF; manage Savannah River production reactor SNF; and develop alternative treatment and packaging technologies for aluminum clad research reactor SNF, with specific focus on direct co-disposal with high-level waste and melt and dilute/poison technologies, that would put the research reactor SNF in a form suitable for geologic disposal without necessarily separating the fissile materials. In FY 1996, coordinated acceptance and management of foreign and domestic research reactor SNF; managed production reactor SNF and initiated development of alternative treatment and packaging technologies for aluminum clad research reactor SNF with specific focus on direct co-disposal with high-level waste and melt and dilute/poison technologies.</li> </ul>			

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

# NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

## III. Performance Summary - Accomplishments: Savannah River

### **Stabilization** (Continued)

#### **Spent Nuclear Fuel:** (Continued)

These funds were appropriated in the Waste Management program. In FY 1997, will prepare documentation to support privatization of the Transfer and Storage Project to obtain services to manage and provide interim storage for foreign and domestic research reactor SNF; award a contract for privatization for the Transfer and Storage services; continue to receive and manage foreign and domestic research reactor SNF; manage production reactor SNF; and continue development of alternative treatment and packaging technologies. In FY 1998, will continue to receive and manage foreign and domestic research reactor SNF; manage production reactor SNF; and continue at a lower level of effort the development of alternative treatment and packaging technologies.

TOTAL, Stabilization

<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
0	19,793	15,600
<u>\$ 49,418</u>	<u>\$ 99,563</u>	<u>\$103,491</u>

\* FY 1996 and FY 1997, uncosted balances were used to augment the budget authority (BA) received in these years. Therefore, the BA shown does not directly relate to the scope accomplishments for the described activities throughout the budget.

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### Deactivation

- One of the primary purposes of the Deactivation program is to reduce the annual surveillance and maintenance costs associated with facilities which no longer are needed for DOE's mission. In FY 1996, deinventoried SNM from P-Reactor and moved it to K- and L-Reactors for temporary storage; continued heavy water removal and treatment from reactor areas; started waste minimization (decon) operations in C-Reactor; removed distillation columns from all reactors; moved several hundred fuel assemblies and cans containing HEU from M-Area to K-Reactor for temporary storage; deactivated equipment and material in M-Area; deactivated portions of 247-F and 235-F; decontaminated portions of H-Canyon, FB-Line, and old HB-Line to minimize contaminated floor space; and consolidated the sludge in the K- and L-Reactor disassembly basins in preparation for complete removal. In FY 1997, the waste minimization operations will be continued in C-Reactor but no further deactivation can be funded. In FY 1998, no activity.

TOTAL, Deactivation

<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
0	887	0
<u>\$ 0</u>	<u>\$ 887</u>	<u>\$ 0</u>

#### Program Direction

- Provided funding for FTE Federal employees for management and oversight of the Nuclear Material and Facility Stabilization activities, milestones, and performance measures. In FY 1997, these activities were budgeted in the Program Direction account.

TOTAL, Program Direction

33,011	0	0
<u>\$33,011</u>	<u>\$0</u>	<u>\$0</u>



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### **Program Support**

- Provided support for support services functions which include managing independent ecological studies, technical and administrative support, program management, organizational and strategic planning, performance measures and cost assessments. In FY 1997, these activities were budgeted in the Program Direction account.

TOTAL, Program Support

<u>FY 1996*</u>	<u>FY 1997*</u>	<u>FY 1998</u>
20,294	0	0
<u>\$20,294</u>	<u>\$0</u>	<u>\$0</u>

#### **Site-Wide Landlord**

- In FY 1996, funding provided for the management of forest and land resources on a 300 square mile site, managed timber sales, documented endangered wildlife and plant life, performed water shed planning, controlled erosion, and maintained secondary roads. Provided vegetative maintenance for 847 acres. Completed watershed plan. Completed watershed stabilization on 175 acres. Completed .8 miles of secondary road construction and performed maintenance on 103 miles of secondary roads. Completed 20 studies including biological diversity studies focusing on land-use history, large woody debris, savannah and hardwood restoration, pine density, mass production, landscape dynamics, and monitoring. Completed population censuses for 32 rare plant species, deer, waterfowl, neotropical migratory birds, and the bald eagle. Surveyed 8,000 acres for new populations of threatened and endangered species (TES) plants and animal species and improved 10,000 acres for the red-cockaded woodpecker. Restored a Carolina Bay. In FY 1997, funding will be provided for the management of forest and land resources on a 300 square mile site, manage timber sales, document endangered wildlife and plant life, perform water shed planning, control erosion, and maintain secondary roads. Activities will be funded for soil stabilization and sediment control, protection of endangered species and provide quality habitats, prevention of wildland fires, implementation of a site-wide wildlife and botany program, survey areas for new populations of TES plants and animal species, implementation of an ecological classification system,

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Site-Wide Landlord</u></b> (Continued)			
<p>maintenance of a site-wide GIS system, GPS satellite mapping of the secondary road system, implementation of 4 smoke assessment studies, and 50 biological diversity projects. In FY 1998, activities will be funded for critical maintenance of secondary roads, timber sales management, wildland fire protection at a reduced level, curtailed improvement of habitats for plants and animals, limited management of the SRS ecosystem, and limited protection of endangered species.</p>	5,561	10,475	5,300
<ul style="list-style-type: none"> <li>In FY 1996, independent ecological studies and academic assessments of the impact of site operations on the environment were conducted. Data was provided to the Site which was the basis for ecological risk assessment necessary for the Site clean-up and remediation activities. In FY 1997, ecological studies will be conducted in the areas of ecosystem management, environmental transport and biogeochemical cycling of contaminants from high level waste operations, radioecology and radionuclide environmental chemistry from past years of reactor operations and risk assessment of site operations. In FY 1998, studies will be conducted in those areas of greatest need for DOE centering around the restoration and remediation of Site lands, risk assessment activities and land management decisions.</li> </ul>	10,316	10,225	9,300
<ul style="list-style-type: none"> <li>In FY 1996, funding provided for essential activities to maintain facility operations at the Savannah River Site to ensure safe and successful facility operation and compliance with local, state and federal regulations. Activities included payment-in-lieu-of-taxes (PILOTS), Historically Black Colleges and Universities (HBCU), South Carolina Universities Research and Education Foundation (SCUREF), public reading room, South Carolina Water Resources Commission (SCWRC), interagency agreements and total quality management. In FY 1997, funding will continue for those activities mentioned for FY 1996. In FY 1998, funding will only be available for payment-in-lieu-of-taxes.</li> </ul>	5,000	5,000	2,930

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Site-Wide Landlord</u></b> (Continued)			
<ul style="list-style-type: none"> <li>In FY 1996, activities were funded to acquire capital equipment that is required to maintain safe and efficient operations for site-wide programs, safe storage of nuclear materials, and compliance with regulatory requirements and commitments. In FY 1997, activities will be funded to acquire critical capital equipment that is required to maintain safe and efficient operations for site-wide programs, safe storage of nuclear materials, and compliance with regulatory requirements and commitments. In FY 1998, activities will be funded to acquire only emergency capital equipment that is required to maintain safe and efficient operations for site-wide programs, safe storage of nuclear materials, or compliance with regulatory requirements and commitments.</li> </ul>	13,179	2,586	1,910
<ul style="list-style-type: none"> <li>In FY 1996, executed General Plant Project construction items for a safe and cost efficient infrastructure, safe storage of nuclear materials, and regulatory requirements and commitments. In FY 1997, fund execution of critical General Plant Project construction items for a safe and cost efficient infrastructure, safe storage of nuclear materials, or regulatory requirements and commitments. In FY 1998, no funding of General Plant Projects will be provided.</li> </ul>	4,440	1,270	0
<ul style="list-style-type: none"> <li>In FY 1996, provided infrastructure support for DOE-SR direct activities including: transportation, liaison between DOE and General Services Administration; rents, utilities and landlord services for DOE offices; maintenance of DOE radio equipment; multimedia services; telecommunications (telephones, computer service and maintenance); office supplies; and office relocations. In FY 1997, the activities stated above will continue to be supported using carryover funds from FY 1996. In FY 1998, the activities stated above will continue to be supported on a limited basis.</li> </ul>	7,665	468	3,792
<ul style="list-style-type: none"> <li>Initiate construction of line item projects at the Savannah River Site to support the site-wide mission: HP Site Support Facility (97-D-473) and Environmental Monitoring Laboratory (97-D-470). In FY 1998, these projects are budgeted in the National Defense Asset Acquisition appropriation.</li> </ul>	2,350	5,110	0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### **Site-Wide Landlord** (Continued)

- Complete two projects in FY 1996, one project in FY 1997, four projects in FY 1998, and continue activities for ongoing construction projects, which will allow the site to comply with state drinking water standards, Federal laws and EPA regulations such as the Clean Air Act and the Pollution Prevention Act, and to support various program missions: Domestic Water Upgrades Phase I & II (93-D-147), Radio Trunking System (95-D-156), Upgrade Site Road Infrastructure (95-D-155), HP Instrument Calibration Facility (92-D-143), and Plant Maintenance and Improvements (92-D-151), CFC HVAC/Chiller Retrofit (96-D-471), Operations Support Facility (92-D-150), Environmental Modifications for Production Facilities (93-D-153), HP Site Support Facility, and Environmental Monitoring Laboratory. Funding shown represents expense funding for other project costs (OPC). In FY 1998, construction funds are requested in the National Defense Asset Acquisition appropriation.

TOTAL, Site-Wide Landlord

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
19,935	17,802	3,090
<u>\$68,446</u>	<u>\$52,936</u>	<u>\$26,322</u>

#### **Emergency Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, activities will focus on the development of a comprehensive field Transportation Emergency Preparedness Program (TEPP) including an emergency exercise program. In FY 1998, activities will include the completion of the TEPP program and focus attention on a technical assistance program for State, tribal and local governments.

TOTAL, Emergency Management

0	150	150
<u>\$0</u>	<u>\$150</u>	<u>\$150</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Savannah River

#### Pollution Prevention

- In FY 1996, funds were appropriated in the Waste Management program. In FY 1997, implement pollution prevention programs including activities: 1) to meet pollution prevention requirements; 2) to maintain site-wide pollution prevention programs; 3) to contribute to the Secretarial pollution prevention goals; 4) to develop incentives to reduce waste generation; and 5) to implement waste reduction projects. In FY 1998, the Savannah River Site will continue to reduce low-level radioactive, low-level mixed waste and sanitary waste generation from routine operations, in support of the Secretarial goals for the Department.

TOTAL, Pollution Prevention

TOTAL, SAVANNAH RIVER

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	3,133	2,000
<hr/> \$0	<hr/> \$3,133	<hr/> \$2,000
\$594,106	\$545,692	\$492,328

#### Significant Funding Changes From FY 1997 to FY 1998:

- The net decrease in surveillance and maintenance funding is attributed to receipt of additional casks of foreign research reactor fuel elements (\$+2,561,000); completion of general plant projects, expenditure of capital equipment items, transfer of the Actinide Packaging and Storage Facility (97-D-450) project to the National Defense Asset Acquisition appropriation, and occurrence of re-engineering (\$-28,595,000); deinventory of HB-Line vault and reduction in heavy water activities (\$-13,778,000); requirement of \$11,154,000 of new budget authority to offset the use of prior year balances. -28,658
- The net increase in stabilization funding is due to deinventory of HB-Line (\$-3,303,000); reduction in the alternative technology development program for spent nuclear fuel (\$-4,193, 000); and requirement of \$11,424,000 of new budget authority to offset the use of prior year balances of prior year balances. +3,928
- All deactivation activity regarding waste minimization operations is eliminated. -887

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### Significant Funding Changes From FY 1997 to FY 1998: Savannah River (Continued)

- Net funding changes to landlord activity:
  - Decrease in project construction funding reflects transfer of projects to the National Defense Asset Acquisition appropriation. -19,822
  - Increase in funding to support DOE-SR direct activities due to the use of carryover funds in FY 1997. +3,324
  - Decrease in funding will be accommodated by reducing activities that support forest service management, soil stabilization, sediment control, biological evaluations, inventory and monitoring plants and animals, ecological studies, Historically Black Colleges and Universities, South Carolina Universities Research and Education Foundation, public reading room, South Carolina Water Resources Commission, interagency agreements, total quality management, capital equipment, and General Plant Projects. -10,116
- Decrease in Pollution Prevention funding is due to significant progress achieved in reducing low-level radioactive waste generation. -1,133

NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE  
(Dollars in Thousands)

HEADQUARTERS

I. Mission Supporting Goals and Objectives

Headquarters role is to determine and implement policy. This is done through the establishment of priorities and goals for the program, and the development of baselines to assist in determining progress on a given activity. Subsequently, Headquarters assesses the adequacy of progress in order to report to Congress, interested stakeholders, and the public on the status of the Nuclear Material and Facility Stabilization program. Training under the Hazardous Waste Operations and Emergency Response (HAZWOPER) Standards is funded in this office.

Headquarters is responsible for the Transportation and Packaging national program, which assures the proper packaging, shipment and emergency management support, and receipt of hazardous materials (particularly radioactive) and hazardous wastes and substances, with external State, tribal, and local government coordination on all activities. It provides the Department with the corporate (crosscutting) policy, direction, tools, and technical assistance to enable the sites to move DOE materials safely, legally, and in a cost-effective and efficient manner as required by 49 CFR and DOE Orders.

Headquarters is responsible for coordinating the Department's Pollution Prevention program. The purpose of DOE's Pollution Prevention program is to reduce generation and releases of multi-media wastes and pollutants by implementing cost-effective waste minimization and pollution prevention technologies, practices, and policies, while conducting the Department's operations in compliance with applicable environmental requirements. The Department's Pollution Prevention program will affect all its program elements including Environmental Management, Defense Program, Energy Research, Nuclear Energy and all operations offices.

II. Funding Schedule: Headquarters

<u>Program Activity</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>\$ Change</u>	<u>% Change</u>
Program Support .....	\$8,803	\$11,898	12,748	+850	+7%
Program Direction .....	7,350	0	0	0	0%
Environmental and Regulatory Analysis .....	0	772	1,500	+728	+94%
Transportation Management .....	0	678	1,675	+997	+147%
Emergency Management .....	0	554	450	-104	-19%
Characterization Management .....	0	350	0	-350	-100%
Pollution Prevention .....	<u>0</u>	<u>781</u>	<u>1,300</u>	<u>+519</u>	<u>+66%</u>
TOTAL, Headquarters .....	\$16,153	\$15,033	\$17,673	+\$2,640	+18%

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Headquarters

#### **Program Support**

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<ul style="list-style-type: none"> <li>Support selected direct field activities to achieve cost efficiencies and increase the effectiveness of these activities for accelerating stabilization and deactivation opportunities and performance systems.</li> </ul>	\$8,803	\$2,494	\$3,734
<ul style="list-style-type: none"> <li>In FY 1996, this activity was supported in other Environmental Management programs. In FY 1997 and FY 1998, continue to fund training at DOE Nuclear Weapons Facilities and related sites under the HAZWOPER program.</li> </ul>	0	8,000	7,500
<ul style="list-style-type: none"> <li>In FY 1996, these activities were supported in the Compliance and Program Coordination account. In FY 1997, will act as program focal point for plans, processes, implementing procedures, and systems for effective and efficient program formulation, execution, and evaluation. Maintain and implement benchmarking and value engineering programs. In FY 1998, continue maintaining databases, conducting analyses, and disseminating results and lessons learned, and develop the Program Baseline Control Board System.</li> </ul>	0	1,404	1,514
TOTAL, Program Support	<u>\$8,803</u>	<u>\$11,898</u>	<u>\$12,748</u>

#### **Program Direction**

<ul style="list-style-type: none"> <li>Provided funding for FTE Federal employees to manage the Nuclear Material and Facility Stabilization Program. In FY 1997 and FY 1998, these activities are budgeted in the Program Direction account.</li> </ul>	7,350	0	0
TOTAL, Program Direction	<u>\$7,350</u>	<u>\$0</u>	<u>\$0</u>

#### **Environmental and Regulatory Analysis**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, working towards establishing a center of excellence for conflict resolution and collaborative decision-making at Rocky Flats that will facilitate "partnering" programs between DOE and its regulators, continuing to serve as the EM NEPA Compliance Officer and the DOE lead for Superfund legislative reform, are supporting sites and program offices in negotiating Agreement-in-Principle and the policy



## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Headquarters

#### **Environmental and Regulatory Analysis** (Continued)

provisions of cleanup and compliance agreements, are responding to proposed legislation, testimony, agency reports and Secretarial issues as required. In FY 1998, will facilitate "partnering" programs between DOE and its regulators, will continue to serve as the EM NEPA Compliance Officer, will support sites and program offices in negotiating Agreements-in-Principle and the policy provisions of cleanup and compliance agreements, and will continue to respond to proposed legislation, testimony, agency reports and Secretarial issues as required.

TOTAL, Environmental and Regulatory Analysis

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	772	1,500
<u>\$0</u>	<u>\$772</u>	<u>\$1,500</u>

#### **Transportation Management**

- In FY 1996, funds were appropriated under the Compliance and Program Coordination program. In FY 1997, activities will focus on the reengineering of the Department's transportation activities in effort to reduce the overall costs to the DOE, continue development and implementation of policies and procedures to provide a greater assurance of regulatory compliance and efficiency; provide clear lines of responsibility and authority for transportation; and to promote a conducive environment for total quality management in all DOE transportation activities. In addition, efforts to continue with the Transportation External Coordination Working Group to improve stakeholder communications and to ensure appropriate level of stakeholder involvement in DOE shipping activities. In FY 1998, work will continue in establishing the DOE policies and procedures for transportation and packaging activities and the development of computerized training materials to assist the DOE sites in meeting federally-mandated training requirements and work will continue with stakeholder involvement.

TOTAL, Transportation Management

0	678	1,675
<u>\$0</u>	<u>\$678</u>	<u>\$1,675</u>

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Headquarters

#### **Emergency Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, efforts will focus on rebuilding the Facility Emergency Preparedness Program (FEPP). This includes reviewing EM facility emergency plans, participation in facility emergency exercises, supporting the Duty Officer program, and maintenance of the EM portion of the Departmental Operational Emergency Management Team plans, procedures, and training for the FEPP. Also will complete the Transportation Emergency Preparedness Guidance document which will provide for a standardized comprehensive program for the DOE and activities associated with the development of the national Transportation Emergency Preparedness Program (TEPP). In FY 1998, will continue the operation and maintenance of the EM FEPP to assure EM is prepared to handle emergency situations that may arise at its operating sites. In addition, begin implementation of the guidance document at the TEPP program throughout the DOE complex.

TOTAL, Emergency Management

<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
0	554	450
<hr/> \$0	<hr/> \$554	<hr/> \$450

#### **Characterization Management**

- In FY 1996, funds were appropriated in the Compliance and Program Coordination program. In FY 1997, activities will include maintaining a system that tracks the prices and requirements for analytical services in contracts that EM has procured from the private sector. This activity will allow EM to investigate the application of privatization to analytical services provided to EM. Also included in this activity is the development and piloting of highly improved, low-maintenance information management systems for easy access to data on all aspects of analytical services. In FY 1998, no activity.

TOTAL, Characterization Management

0	350	0
<hr/> \$0	<hr/> \$350	<hr/> \$0

## NUCLEAR MATERIAL AND FACILITY STABILIZATION - DEFENSE

### III. Performance Summary - Accomplishments: Headquarters

	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
<b><u>Pollution Prevention</u></b>			
<ul style="list-style-type: none"> <li>In FY 1996 funds were appropriated in the Waste Management program. In FY 1997, manage and coordinate the Department's pollution Prevention programs including: 1) work with all the cognizant Secretarial offices and operations offices to develop policies, strategic plans, and guidance; 2) gather information and prepare reports to meet pollution prevention requirements; 3) provide training and technical support; 4) develop tools and facilitate information transfer; and 5) conduct performance assessments. In FY 1998, continue FY 1997 activities except items (3) and (4).</li> </ul>	0	781	1,300
TOTAL, Pollution Prevention	0	781	1,300
TOTAL, HEADQUARTERS	\$16,153	\$15,033	\$17,673

### Significant Funding Changes From FY 1997 to FY 1998: Headquarters

<ul style="list-style-type: none"> <li>Increase in program support activities to effectively act as the programs focal point on Headquarters/field activities (\$+1,350,000); reduction in the HAZWOPER program (\$-500,000).</li> </ul>	+850
<ul style="list-style-type: none"> <li>Increase in the Environmental and Regulatory Analysis funding is due to increased site presence to facilitate and implement partner/teaming programs to work with regulators in achieving more cost-effective and timely actions by streamlining regulatory strategies.</li> </ul>	+728
<ul style="list-style-type: none"> <li>Increase in Transportation Management funding is due to increased stakeholder involvement in transportation activities and issues.</li> </ul>	+997
<ul style="list-style-type: none"> <li>Decrease in Emergency Management funding is due to the completion of the Transportation Emergency Preparedness Guidance document.</li> </ul>	-104
<ul style="list-style-type: none"> <li>Decrease in Characterization Management funding is due to a reduction of analytical services and surveillance and maintenance activities.</li> </ul>	-350
<ul style="list-style-type: none"> <li>Increase in Pollution Prevention funding is due to policy management and guidance to Albuquerque for decision making for complex-wide activities.</li> </ul>	+519